H D Sankalia

Pre-Historic Art in India

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H D Sankalia

Professor Emeritus
Deccan College, Poona

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Preface

SOME six years ago, the Rev. Father Anthony D'Costa, then the Director of the Heras Institute, invited me to deliver the Heras Memorial Lectures for the second time, after a lapse of 15 years, on the subject of "Prehistoric Art in India." I accepted this invitation with not a little trepidation, because in 1972 we had no evidence of true art in the Stone Age, as in Western Europe. Moreover, our knowledge of rock-art still remained to be properly appraised.

Though the extent of the great Indus Civilization or the Harappa culture was being continuously increased in every direction, little evidence was available of its contribution to art history. No doubt, we had during the last 25 years unearthed a number of Chalcolithic and Neolithic cultures in the rest of India, still these had not much to boast of in the way of art. As in other aspects of civilized life such as town planning, arts and crafts, there was an appreciable decline after the Indus civilization. So I was at first sceptical about my ability to contribute to this much neglected aspect of our past.

Fortunately, during the past three or four years, important discoveries were made by the Department of Archaeology, the University of Allahabad, and the Deccan College. Professor G. R. Sharma and his colleagues, Dr R. K. Varma, and Shri Dhaneshar Mandal, discovered a unique bone figurine in the Belan gravels. Shri S. A. Sali obtained fragments in his excavations at Patne, District Jalgaon of an engraved ostrich shell. The carbon-14 determinations of both these, that of Belan by the Physical Research Laboratory and that of Patne by Groningen, place the figurine and shell decoration around 20,000 years before the present century. Along with the associated stone industry at both the sites, these confirm the slightly earlier evidence of a truly Upper Palaeolithic bone and stone industry of the Western European facies in the Kurnool and Chittoor Districts of Andhra obtained by Dr M. L. K. Murty of the Deccan College in 1968-70.

These discoveries help to span the gap between the Middle Palaeolithic and the Mesolithic with the present brief but connected account, of the *birth* of the artistic sense and its gradual expression, right from the Early Stone Age. Planned research as well as providential discoveries have thus supplied the material for the first lecture, which is necessarily brief at the moment.

This is equally true of the third lecture on Rock-Art. Although we were aware of the existence of rock-art for the last hundred years, specific knowledge was lacking and the scientific study of rock paintings followed. Fortunately I had the occasion to guide these when Shri V. S. Wakankar, with his extraordinary knowledge of rock-art, spent some time at the Deccan College. We could then organize it in some definite time sequence. Though this study removed much of rock-art from the prehistoric age, still what was left is truly old. This hypothesis once again was tested by Dr V. S. Wakankar and Dr V. N. Misra, during their excavations at Bhimbetka near Bhopal. Further, another student of our Institute, Shri Y. D. Mathpal, followed up the earlier work of Wakankar, by a detailed investigation in the same region. Mathpal like Wakankar is an artist, and well trained in prehistory. Thus an attempt is being made to put our knowledge on secure foundations.

These frontiers have been suddenly extended by Thampi's discoveries at Muriyur in Kerala, and the scientific study of earlier discoveries by John in the Edakkal Cave in Kerala. It will be apparent that but for the help from my pupils, Wakankar, Mathpal, Thampi and John, and the earlier discoveries by Dr Nagaraja Rao at Tekkalkota, this short but more precise knowledge about prehistoric rock-art in India would not have been possible at present. Of course, much more can be done if discoveries elsewhere, for instance in Uttar

Pradesh, are followed up scientifically and the results fully published.

The second lecture is unexpectedly much longer. This comprises my study of the earlier material, so carefully and meticulously collected by Marshall, Mackay and Vats and their colleagues, from the excavations at Mohenjodaro, Harappa and Chanhudaro. The earlier research and its later appraisal by Piggott, Pusalkar, Wheeler, Allchin and Govind Chandra, has failed to appreciate or understand the much larger and deeper contribution of the Indus Civilization to our knowledge of prehistoric art.

This was primarily because Mackay doubted and questioned the attribution to Harappa, of the unique sandstone statuette discovered by Pandit Madho Sarup Vats. This incidence took place in my tent at Chanhudaro in December 1935. Naturally Marshall, though very appreciative of the artistic value of this statuette, expressed his opinion very guardedly. So also did Wheeler and others who later wrote on this subject.

Likewise Mackay's view, that many of the figurines of men and women, birds and anmials were the work of children at Harappa and Mohenjodaro, also influenced the opinion of Marshall, Vats and others. These commendable accounts have left behind a careful account of the location and description of finds. A fresh study of these very accounts showed that neither Marshall, nor Mackay nor Vats realized the implication of their statements, that these figurines were the handiwork of children. From the horizontal and vertical distribution of these figurines at Harappa and Mohenjodaro, we reach the incredible conclusion that almost every family in the excavated area made these terracottas and faience figurines. Technologically a child, however precocious, cannot even make a terracotta figurine, let alone that of faience, and later bake it. In the case of faience the process is still more complicated. Both these perhaps might be accomplished by a couple of families, but not *all* the families. The logical conclusion and its application has been discussed at length in Lecture II.

The Indus artist was the first and only one in the whole range of art history, either in India or outside,[1] who applied extensively the principle of the composite tool. He manufactured the small figurines in terracotta, faience, ivory and shell in separate parts, particularly, the extremities like legs, of birds, the tongue of a serpent. It was therefore he alone who could have conceived the idea of making detachable limbs, arms and head(s), as in the case of the red sandstone torso and the grey dancer's statuette. This technical evidence was missed by Marshall, Vats and surprisingly Mackay, who has handled and described these specimens in great detail. However, this evidence is sufficient to declare, once and for all, that the sandstone statuette as well as the grey statuette, are most certainly the work of the Indus artist.

Finally, as has been shown in that lecture, the Indus artist took delight in all aspects of life; and this art was appreciated by every home. The artists who appropriately thought of fashioning the squirrel, the serpent and the armadillo in faience, since their inimitable shades of colours could not be rendered so effectively in terracotta, could not have left their houses bare, both inside and out. These must have been suitably, even gaudily, painted, and thus would not have looked so dull and monotonous as the remains now seem at Mohenjodaro, Lothal and Kalibangan. Both these revolutionary conclusions were made possible by a fresh, intensive and unbiased study of the material collected over 40 years ago. Certainly, much more about the Indus Civilization might still be learnt, if we pay more than usual attention to a detailed, analytical recording of finds, and their prompt study in the field and the laboratory.

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[1] Recently a similar feature has been noticed in the clay figurines of the Neolithic period from Nea Nikomedia and in far off Zagros. G. Clark, *World Prehistory*, 1977, p. 123.

Thus in one way or another, it has become possible to present the first connected account of prehistoric art in India. I am indeed thankful to Father D'Costa, and his successor Father Velinkar, for giving me the opportunity to present this material on the 50th anniversary of the Heras Institute.

Lecture II was unusually long. It has therefore been split up into five, thus making the total number of chapters seven. It is hoped that this re-arrangement will help in concentrating the attention of students to several more points brought out in these lectures.

H. D. SANKALIA

Poona

List of Figures

Figure

1. Palaeolithic tools: choppers, handaxes and cleavers
2. Palaeolithic tools: blades, borers, burins
3. Blades, burins and points from the Belan valley, U.P.
4. Female figure in bone from Gravel III, Belan valley
5. Incised drawing on ostrich shell from Patne excavations, Maharashtra
6. Pottery lid from Tekkalkota, with pinhole decoration, c. 1800 B.C.
7. Inside base of bowl from Inamgaon with Swastika, c. 1200 B.C.
8. Harappan vase from Chanhudaro, monochrome
9. Dish from Cemetery H, Harappa
10. Decoration on shoulder of vessel from Cemetery H, Harappa
11. Painted pottery rattles from Chanhudaro
12. Male torso in red sandstone from Harappa
13. Male torso in limestone from Harappa
14. Dancing girl in bronze from Mohenjodaro
15. Woman with pannier head-dress
16. Young woman's torso
17. Woman with distended breasts
18. Woman with breasts exposed
19. Terracotta figurines of two pregnant women
20. Terracotta figurine: kneading dough
21. Terracotta figurine: woman supporting object
22. Male bust of priest in steatite from Mohenjodaro
23. Male head in yellow limestone from Mohenjodaro
24. Two-faced head in terracotta from Mohenjodaro
25. Deity in white steatite from Mohenjodaro
26. Hollow pottery mask with horns
27. Terracotta figurine depicting different asanas
28. Three views of a seated figurine in alabaster from Mohenjodaro
29. Three views of a kneeling figurine in alabaster from Mohenjodaro
30. Bronze dog from Mohenjodaro
31. Terracotta dog from Mohenjodaro
32. Bronze antelope from Mohenjodaro
33. Terracotta horse from Lothal
34. Brahmani bull in terracotta from Mohenjodaro
35. Bull in steatite from Mohenjodaro
36. Bull in bronze from Mohenjodaro

37. Buffalo in bronze from Mohenjodaro
38. Bird in flight from Mohenjodaro
39. Monkey in terracotta from Mohenjodaro
40. Crocodile from Harappa
41. Monkey mother and child from Mohenjodaro
42. Brahmani bull from Mohenjodaro (seal)
43. Rhinoceros from Mohenjodaro (seal)
44. Impression of Unicorn (seal)
45. Wild goat from Mohenjodaro (seal)
46. Impression of buffalo from Mohenjodaro (seal)
47. Bronze rod with goat from Mohenjodaro
48. Steatite seal impression from Mohenjodaro
49. Seal or amulet from Jhukar culture
50. Engraved seal or amulet from Jhukar culture
51. Lota from Navdatoli, c. 1500 B.C.
52. Lota from Navdatoli, c. 1500 B.C.
53. Goblet from Navdatoli, c. 1500 B.C.
54. Spouted pot from Nevasa
55. Storage jar from Navdatoli, c. 1200 B.C.
56. Fragment of sherd from Nevasa showing deer
57. Fragment of sherd from Nevasa showing dog
58. Terracotta of female figurine from Lal Quila, Bulandshahar, U.P.
59. Large-sized elephant Adamgarh at period 1-a
60. The hunters with hunted animals of period 1-e
61. Geometrical and Floral Motifs at Bhumbatka style I
62. Horse and riders of later period (post-5th century A.D.)
63. Principal regions of prehistoric art

Contents

1 *Palaeolithic Art* 1

2 *Painted Pottery of the Indus Civilization* 10

3 *Human Figurines of the Indus Civilization* 21

4 *Animal Representations of the Indus Civilization* 42

5 *Seals and Sealings* 60

6 *Post-Harappan Discoveries in Pottery* 72

7 *Rock-Art* 80

Notes 95

Bibliography 103

Index 105

1 Palaeolithic Art

WHEN a person who is not an artist himself, not even an art critic, is asked to speak on art in prehistoric India or Indian prehistoric art, he is confronted with the question, "what is art?" and "when do we first find the clear manifestations of this art?"

For the purpose of these lectures, I shall regard that object as artistic which exhibits a sense of symmetry, proportion and delicacy of workmanship, or that which is not produced or made for purely utilitarian purposes. Thus we shall be able to differentitate between arts and crafts, and objects of daily or utilitarian use, and objects which though exhibiting purely aesthetic qualities, still were made for such a purpose.

As opposed to these which show such qualities, there would be objects, which though not made for daily use, show the desire of the makers for self-expression, or motives which might be religious or superstitious, or even a simple desire (some would say delight) to do something to draw, sketch, or mould as a child does. For this the Sanskrit expression, *lila kevala iyam*, or "this is all sport," is very apt. Of course these later things are difficult to be put under definite categories or labels, because we are dealing with a prehistoric period where there was no writing, no folk literature, nothing as such to guide us. Hence it is not impossible, and not improbable, that our interpretation might be regarded as personal, and not of universal acceptance.

The Antiquity of Art

How old is art? Is it as old as man himself?

Until a few years ago, even in 1960, scholars all over the world believed that man, or an ape-like being who could manufacture stone tools, lived some five or six lakh years ago. Then came a series of discoveries in Kenya, East Africa, in what is called Tanzania today. Here in the Olduvai Gorge, Dr Leakey and his wife Mary found a huge lower jaw or mandible, between two layers of basaltic rock. Reconstruction of the probable face-bearer of this jaw gave to the world, a huge ape-like man with a prominent cheek-bone. He was called *Zinjanthropus*, and by a new scientific method of dating, called Potassium Argon, this *Zinjanthropus* was dated to 1.7 million years or about 17 lakh years ago. Thus with one discovery man's antiquity was pushed back by a million years.

Scholars were, however, not sure whether this man made tools. Further studies indicated that *Zinjanthropus* probably belonged to a collateral line of development of early man, called *Australopithecus*. Fortunately, within a few years the Leakeys discovered some more evidence at the Olduvai Gorge. These belong to a different man called *Homo habilis*. Here was definite evidence that this man used stone tools, some of which he used for cutting small animals which he killed, and also for obtaining vegetable food.

According to Potassium Argon dating, this *Homo habilis* lived a lakh of years before *Zinjanthropus*. These two discoveries were sufficient to give a jolt to the traditional view that the man who made the first tools, called choppers and later handaxes, lived some 5,00,000 years ago. However, a still greater surprise was in store. Only four years ago, in June 1973 or so, the Leakeys' son found an almost complete skull (No. 1470) of a man, or near-man, at Lake Rudolf in Kenya, which is dated to 2.6 million years ago.[1] Again at the same place the Leakeys and Dr Isaac, now professor in California, found numerous small tools of stone. These are of various types, and not merely of one or two types as found hitherto.

So now the old view that the earliest man made only large flakes, or huge, pebble-butted handaxes is rejected. As is the case today, man utilized small natural, sharp-edged stones. He also made large as well as small tools by striking one stone against another, using both the resultant flakes as well as the cores. However, in none of these, so far do we see any attempt to have a symmetrical form. For a regularity of shape one has still to go back to the earliest hand-axes and associated flakes. At the Olduvai Gorge and a few other sites in Africa this culture is dated to 1.3 to 1.5 million years, by the Potassium Argon method.

These sites present not only a technological development of stone tools in Africa, but a change in man's economic needs, his subsistence pattern, and above all, his mental and artistic development. Probably this development goes hand in hand with man's development of the brain, and also the emergence of *Homo sapiens*, or the present type of man. At least this is the view of Professor F. Bordes, who for the last several years has been working in the caves of France, and has literally handled thousands of stone tools.

In a recent article in *World Archaeology*, he has suggested that we can justifiably credit the *Homo sapiens* with the first works of art, in painting, engraving and sculpture. It was his predecessor, however, who first deliberately thought of removing a particular or a desired type of flake. This is nothing but planning, or pre-planning. Early man found out that he could get a thin symmetrical flake by first dressing the core or nodule, and then giving a gentle below at one end of the periphery, and lo! the flake was there. It was not necessary to retouch either its edge or the surface. This technique of pre-planning a flake, is known as the *Prepared Core* or *Levallois* technique, after the site of Levallois Perret near Paris.

This however was not the only development. Again perhaps by trial and error, but more because of the innate development of the sense of symmetry, and a sense of proportion, we see the earlier crude, irregular handaxes gradually replaced, or appearing side by side, with beautiful, symmetrical shapes. Some of these handaxes are lance-like and hence called *lanceolate*. Some rare ones like the one from Nevasa (illustrated) are fish-like; others triangular; and others like the pipal leaf, comparatively thin and symmetrically ovate or oval. Now all these are things of beauty. And when some of these ovates, as they are called, are small, hardly three inches in length and about two inches in width and ¼ in. in thickness, we really wonder whether early man had ever thought of using this delicate weapon.

With these handaxes, the associated cleavers at some places, and the pre-planned flakes, we see the birth and development of art, whether it be in Africa, Europe or Asia.

Stone Age Tools in India

In India, the earliest tools made on huge flakes and pebble halves are those from Kashmir and the Punjab. If these are dated to the first Interglacial or second glacial period, their date would be roughly 500,000 years ago.

Later appear the crude handaxes, both in Kashmir and the Punjab, and perhaps at the same time in different parts of India. Nowhere can we see a clear stratigraphical horizon, as at some sites in France or in the Olduvai Gorge in Tanzania. Then all over the Indo-Pakistan subcontinent, we behold the emergence of symmetrically made handaxes. This period, even if most conservatively dated, would be a 100,000 years ago. The Levallois, or the pre-planned, symmetrically turned-out flakes, appear at the same time in the Punjab, and at some places in Peninsular India. These were at first converted into cleavers, at Gangapur and Chirki Nevasa.

Attention must also be drawn here to another form of Early

Palaeolithic art made known by the Acheulian site of Hunsgi, Gulbarga district, Karnataka. Small nodules of haematite were found here, which appear to have been brought by man for use as a colouring material.

For some reason all this technological and artistic development seems to have been lost in the next phase, which is called the Middle Palaeolithic. Either the needs and wants of man changed, or the required raw material was not available, or man himself had changed. Handaxes, cleavers, and large flakes disappeared.

Instead, all over India smaller tools of stone meet the eye; scrapers, borers, and points. The raw material is now any fine-grained stone, such as chert, agate, jasper, or flint in parts of Western Rajasthan. Amongst masses of these stone tools, one occasionally comes across a symmetrically made point, borer or scraper, or a Levallois flake. And if it is multi-coloured jasper, as the one from Kalegaon on the Godavari, one may reasonably credit early man not only with his sense of symmetry, but with his choice of the stone itself. Though there are scholars who would hold otherwise, this was not an accident. Such a sense of symmetry can be seen not only in Maharashtra, but in Andhra-Karnataka, Kutch-Saurashtra, Gujarat, many parts of Madhya Pradesh, but particularly around Sagar, where fine flint-like chert is available. In adjoining Rajasthan, particularly the Luni has given us beautiful large points and knife blades in chert or flinty chert.

Thus we might credit man of the Middle Palaeolithic period of preserving or maintaining the skill and sense of symmetry that he had acquired during the closing phase of the early Palaeolithic. In Europe and in western Asia, the Middle Palaeolithic is largely associated with *Neanderthal Man*. This was succeeded by *Cro-Magnon* who is definitely regarded as belonging to the species of *Homo sapiens*.

Now it is with the appearance of this man, that we find the following novel features:

(1) the substitution of thick flakes by thinner blades of various shapes, intentionally so made, for various kinds of purposes.
(2) thin burins or chisel-ended tools
(3) paintings in caves
(4) relief figures of animals
(5) engravings of animals
(6) sculptures on bone and stone

Thus the crucial step was taken by *Homo sapiens*, modern man according to Professor Bordes. Some 20,000 years ago, in a period known as the Upper Palaeolithic period, he discovered that he could not only give a desired shape to the tool, but that he could also represent not tools, but animals. This denotes an ability to separate the shape from the object desired. Thus was born true art, first two-dimensional, and then three-dimensional.

The Representation of Art

This is indeed true art. It is not an aspect of the craft, of the tools and weapons which the man made for his daily needs. Whether it was art for arts' sake, or whether it was art actuated by a fear of wild animals and their close association, symbiosis, or the fear of the unknown, is not yet definitely settled. Professor Lerois Gourhan who has spent considerable time in studying these, and published a magnificent volume thinks that it was all religious. Others think differently.

At the moment we are not worried by this problem. For in India we have had no art work of this period, either in our numerous caves and rock-shelters or elsewhere. Hitherto even the blades and the burins as well as typical scrapers which characterize the Upper Palaeolithic in Europe were not available; so there was no question of the associated art. There was no art as such.

During the last ten years we have discovered genuine blades and burins, as well as large bone tools fashioned with these burins, from Chittoor and Kurnool district, Andhra Pradesh, respectively. From Mirzapur in Uttar Pradesh come blades and burins, as well as a small figurine cut out from bone. From Patne in Jalgaon District, we have a bead made of ostrich shell and delicately engraved. The Bhimbetka caves and rock-shelters have yielded a large variety of scrapers, blades and burins. All this gives hope that very soon we shall have in India an Upper Palaeolithic culture—that besides the typical blades and burins, we shall have true art work as well.

Among these tools, the burin or chisel deserves a special mention, and some explanation. For it was this tool which early man had invented, after so many trials and errors, for making engravings in bone and soft stone, and even for making a vertical cut in the bones of animals he hunted or killed for food.

While the numerous long bones found in the caves in Kurnool District, A. P. do not give any evidence of contemporary art in the region, a small figurine was found in the Belan valley, Mirzapur District, Uttar Pradesh. It is said to be found "from Daiya on the Lohanda,"[2] whereas in the text it is said that it was found "from Gravel III."[3] It is *not yet* clear whether and where the "so-called Upper Palaeolithic facies (tools) fashioned on chert, or cherty flint—like blades, points, scrapers and burins,[4] were found along with the bone figurine, or separately—"collected" as the term used is, from several sites in the Belan Valley. We may accept the implication of this general and rather vague statement, that some of the burins were actually found with the bone figurine, though a specific statement and details of all the finds with regard to this important discovery are indeed necessary and would be most welcome. Meanwhile, we might regard the entire collection as roughly contemporaneous and belonging to Gravel III. Now a carbon-14 date of a shell specimen from this deposit is dated 19,715+340 B.P.[5] This dating is fairly consistent with the time span of the Upper Palaeolithic in Europe and western Asia.

This is India's earliest dated art work of human origin. It was regarded as a bone harpoon, or else a human figure. However the actual inspection of the specimen at Allahabad in 1974, with the courtesy of Professor Sharma and his colleagues, leaves no doubt that the object is not a harpoon, but a female figurine.

It is about 8 cm. high, between 1.5 cm. and 2.5 cm. broad, and about one cm. in thickness. The face is featureless, a triangular formation, the trunk stick-like with a pointed, triangular portion for the legs and probably the extremity broken. The pendent breasts, and the broad loins definitely indicate that this is a female figurine. It bears a remarkable affinity in general with the female figures regarded as Fertility or Mother Goddesses from western Asia, and eastern and western Europe. When we find that the carbon-14 dating places this unique figure in the same general time bracket of 20,000-15,000 B.C., it raises vital questions of culture-contacts and diffusion.

Equally or more important is a fragment of an ostrich shell, found by Shri S. A. Sali in 1973 from the excavation at Patne, District Jalgaon. It was found in trench PNN-11 in Area B, in a layer which is weathered and underlies the layer of pebbly gravel, assigned to Period IIE. With the engraved shell was found a rich lithic industry. The material is mostly chalcedony and includes several types of blades, scrapers and burins. True lunates appear at this time. On the fairly thick ostich shell a group of parallel lines were drawn, at some irregular intervals from each other, and filled up with parallelograms with some regularity.

That this was not a casual occurrence of the ostrich shell of such an early date in western Maharashtra was proved when a fragment of another ostrich shell was discovered in a deposit of yellowist silt, laid down at the time of last aggradation of the Mula-Mutha river. On the left bank, just behind the campus of the Deccan College, there was a natural, hillock of yellowish silt. When people began to occupy this no man's land, a large section was exposed. This was examined at my suggestion by Dr Z. D. Ansari and Dr R. S. Pappu, and this yielded a fragment of an ostrich shell. However, unlike the case at Patne, no microliths were found, suggesting that man did not live in the vicinity, probably because no raw material for his tools was available.

In this way, the gap between the Palaeolithic and the Neolithic-Chalcolithic is being filled up in India.

Aniconic Sculptures

Just when we felt that we in India might have a parallel art history as in Europe, the latter has gone one step farther. Professor Dragoslov Srejovic discovered after careful examination on the edge of a gorge on the Danube, known as Lepenski Vir (the whirlpool), Europe's first monumental sculpture. These are dated by carbon-14 to C. 4000-5000 B.C. and consist of aniconic and oval boulders. In a few of the former the human face is indicated by the lip, nose, and heavy eyebrows, all done just by simple stone tools.

However, similar aniconic sculptures might be found in India, in our caves and rock-shelters, and Neolithic sites in Andhra and Karnataka. For we have a continuous tradition of regarding aniconic stones as of greater significance than the fully made images of Siva, Ganesha and Hanuman. We also have evidence that small aniconic objects were probably worshipped in the Indus civilization. What is needed, is a careful search for these things.

2 Painted Pottery of the Indus Civilization

ACCORDING to the revised carbon-14 dates, the Indus civilization did not start all at once, in about 2000 B.C., or even in 3000 B.C. There was a long period of gestation in Sind, Punjab, and the north-west frontier and perhaps also in northern Rajasthan, as indicated by the small excavations at Kot Diji, Harappa, Gumla and Kalibangan respectively, and the intensive explorations in Sind by Dr Rafique Moghul.

As is becoming increasingly evident, one of the sources, if not the only source of this cultural development in northwest India, was Iran and the countries of western Asia. Cultural influences such as the tradition of painted pottery, spread from here through Afghanistan and Baluchistan to India. It is not a coincidence that this tradition still survives in an attenuated form in Sind, Punjab, and Rajasthan, and still less in Gujarat-Saurashtra and Madhya Pradesh, Bengal, Orissa; and that it is almost absent in Maharashtra, Andhra and Karnataka. In the west, perhaps the best and one of the earliest productions of painted pottery was documented before 1939, at Tell Halaf in Syria, then at several places in Iraq and Sialk in Iran. Nearer home, besides painted sherds from Kill Gul Mohammed, the best specimen to my knowledge would be the goblet or cup from Rana Ghundai. Equally distinctive, though not very artistic is the buff ware from Nal and the Grey Ware from Shahi Tump. Both bear paintings in mauvish-black.

Harappan Pottery

Compared to the later painted pottery from Navdatoli and sites in

Madhya Pradesh, the Indus artist loved to cover up the entire surface of his object, whether it be a dish, bowl, a globular pot or an elongated vase. Since in all these, the surface of the pot was very large compared to the small cups, bowls and *lotas* from Navdatoli, the artist was obliged to fill up the surface with repetitive motifs, or such motifs as tree foliage which would enable him to achieve his purpose.

Story-telling Scenes

More important, the availability of the larger "canvas" induced or stimulated him to compose a picture or a narrative scene. This feature is later repeated in the Cemetery-H pottery, but it is completely absent in the much earlier Baluchi pottery. The effect of this is no doubt gorgeous, and it would certainly appeal to those who appreciate large pottery with overall patterns. When such a vase, as the one with a gentle profile and inter-laced palms painted over a dark red surface, is kept either in the centre of the large, brick-built drawing room, or even the kitchen at Harappa, Mohenjodaro, Lothal or Kalibangan, the effect produced on the visitor can be easily imagined. We really do not know whether each family possessed one or many of such large painted vessels, *though this can still be ascertained by a very careful plotting of the sherds* and vessels found at Mohenjodaro and Harappa. In comparison with Navdatoli, the amount of painted pottery at all sites of the Indus Civilization is said to be less, probably one-fourth or one-eighth of the entire collection at any one site. At Navdatoli, as will be noticed below, the painted pottery formed the bulk of the collection.

This point can be taken up while studying the pottery from Kalibangan. How much painted pottery did each house possess, and what were the main forms, and where do these normally occur? This means where exactly or where approximately were the pots kept in the house.

With regard to the nature of the paintings, these are usually painted in monochrome, in black over a bright red surface; but there are examples of biochrome or even polychrome pottery. No percentages have been worked out, though this could be done perhaps at Kalibangan. It would appear that the geometric motifs dominate in number over the animal, and human motifs, the last indeed being negligible in number.

As for the nature and quality of the paintings, as Marshall noted long ago,[6] the designs were executed in black over a dark red slip. They consisted ordinarily of foliate and geometric designs, among which the most striking were the "interlocking circle," "vase," "bangle," "comb" and "scale" motifs. Animal motifs are rare. As compared with Baluchistan, the designs on the Indus ware are characterized by a certain boldness and careless freedom in the patterning. The former pottery from Baluchistan is said to betray "more precise and lighter" decoration.

However neither Marshall nor Mackay thought much of the Indus potter's art, nor did Marshall deprecate it. He regarded it as a traditional craft. Though it was not of great merit in respect of either form or decoration, behind it lay centuries of history. Unfortunately the motifs became stereotyped and lifeless by countless repetitions, which evidently went on century after century without any perceptible change.[7] Mackay[8] has elaborated upon the brief reference to the design motifs on Indus pottery given by Marshall. He tells us that the colour most commonly used in decorating pottery was black, a manganiferous haematite. Most of the painted pottery is monochrome: excluding the slip, only one colour was used in painting the designs. This colour, though generally warm, dense black, sometimes has a brownish or distinctly purplish hue. The surface is always dull except in two cases, where a slight polish suggests the possible admixture of some medium. Rarely was the surface of a vessel rubbed down or polished after it had been painted. The lines of the designs are always flush with the surface, showing that the paint was applied in sufficiently liquid state to permeate a little below the surface.[9]

Monochrome Painting

Monochrome painting was the rule, and biochrome and polychrome painting were exceptions. Of the former, one example is here cited. Here the ground colour of the vessel is cream, and on it the decoration was done in two colours.[10]

Another still rarer example is a very graceful jar, first coated with a thick, smooth slip. On this was painted a conventional floral design, the petals outlined in black, with the body bearing the background of cream colour. The intervals were then filled in with red paint.

A minute pottery stand[11] and an offering stand are also painted in this medium.

Polychrome Painting

Mackay thought that these two or three vessels also bore decorations in a green paint, which having become powdery, was easily rubbed off. At Harappa were found four vessels, all originally bearing a polychrome decoration. Only one now survives, which is described by Vats.[12]

The design consists of four highly conventionalized foliate plants each with leaves bifurcating obliquely on either side of the vertical stem. Interspersed between the leaves are triangular motifs pointing downwards. The leaves are all dark red, and the triangles green. Vats' comment (I, p. 288) seems justified that this decoration, though simple, must have looked quite effective on the white background.

These few specimens of polychrome pottery were found in deposits of the late level both at Mohenjodaro and Harappa. Hence we may conclude with Vats and Mackay that only during the end phase of this civilization, a stimulus was received or self-generated, to attempt decorations in three or four colours on pottery.

Technique of Drawing

There is some indication how these paintings were executed. A brush possibly made of donkey hair, as used in Sind today, was used.[13] Mackey later said[14] that hair brushes might be of varying fineness. He also thought that, owing to the extreme regularity in width of the fine lines used to hatch the leaves,[15] a reed-pen was used for certain details. This is clearly implied when the paint is applied on the natural surface of the pottery. The lines are thick at first owing to the fullness of the brush, and thin out later as it dried.[16]

Mackay later adds that when a manganiferous paint is applied in "sufficiently fluid state to a slip and especially to a wash, it readily penetrates to and stains the surface of the pottery below. When so applied it has a thick opaque appearance, and is sometimes raised a little above the level of the slip."[17]

When compared to the large areas excavated the forms or types of vessels on which the painted motifs appear are so far few. Hence it appears that mostly shoulders of large jars were decorated; or occasionally the entire surface, as in the case of medium sized, elongated and globular vessels. The lower portions in the case of large jars were left plain, because these probably remained hidden from view, being buried in the ground or in pottery racks, as at Ahar in S.E. Rajasthan.

It is also noticed by Mackay as well as Vats that the tendency of the Indus potter is to arrange the motifs in horizontal registers, rather than in the vertical panels as was so common in Iran and Mesopotamia. The common motifs consist of a few animal designs, still fewer plant designs, and mostly geometric designs. Among the few animals shown are the ibex, antelope, snake, lizard, and the dove, but never the bull, elephant, rhinoceros and the tiger so realistically portrayed as on the faience, steatite and copper seals.

The bird most frequently depicted is the peacock, which is but natural as this forms and once formed a conspicuous feature of the shrubby sandy landscape of Sind, Rajasthan and Saurashtra.

How are these animals drawn? Unlike the few later Chalcolithic specimens in the representation of the ibex, antelope and doe, some kind of natural environment is shown here. In the three examples cited by Mackay, bushes or trees are also represented.[18] The remaining five specimens are fragmentary.

Stylistically, one of these examples in my opinion does not belong to the Indus civilization or the Harappan culture complex.[19] Mackay had noted only the thickness of the ware, and its light red colour, but not the method of representing the animal. In fact both are unusual of the true Mohenjodaro pottery. Firstly, the ware is not Harappan in form, texture and colour. Secondly, the animal is shown in an impressionistic bough or trees, the latter just depicted by a column of horizontal lines before and above the animal. Thirdly, the body of the animal is thinly hatched. All these point to the non-Harappan character of the vessel, which is also indicated by the fact that it was found just four ft. below the surface.

As far as the animal itself is concerned, it may be said to be drawn fairly accurately, but not quite realistically. No attempt is made to show the muscles, but the animal's body is shown just by oblique strokes, and the outline is not so well drawn. According to Mackay,[20] two animals are depicted, the main one according to him being some kind of antelope with long curved horns, and the smaller one with a very long thick tail, perhaps a jackal. Whatever these might be, they are not works of art.

A goat seems to have been depicted in an elaborately composed jungle or village scene where there are human beings, shown in one register. A cock or hen is shown seated on the back of the goat. The animal is well drawn, though no attempt is made to show the muscles. Vats seems to infer that at Mohenjodaro the animal figures were hatched without exception, all belonging to the late period as later pointed out by Mackay. At Harappa he refers to examples where the bodies are completely blocked,[21] whereas in others these are hatched.[22] Now all these were found up to a depth of 17 ft. of the then prevailing method of stratification, and these belong to all the three periods—early, middle and late.[23]

This fact requires much closer study than was done in 1921-31 or in 1947-74. The collection of pottery should not be recorded merely as depthwise but housewise, at Kalibangan, Gumla, or Kot Diji. Only then could more meaningful conclusions be drawn not only about the artistic styles, but the differences among the potters, or sections of the population which favoured one or the other method of showing the animal's body.

The only trees/plants which can be definitely identified are the date palm,[24] the pipal[25] and the acacia,[26] and it would be interesting to compare how these are represented on the seals and sealings. The acacia is frequently depicted on terracotta and faience sealings, and the pipal as well.[27] The best representation of a date palm is on a seal from Harappa.[28] This is shown vertically presenting the whole tree with palm leaves. It is worked and shown realistically with regard to the pipal tree, while the general form of the leaf can be made out from paintings on pottery, on the seal, the leaves are depicted perhaps too realistically.[29] Thus Mackay's earlier statement that the pipal tree does not appear on Mohenjodaro pottery requires to be modified or corrected.[30]

Geometric Motifs

Among the so-called geometric motifs occur triangles (single and double), chequers, hide motif, crosslike designs, the comb motif and the bangle motif. However Mackay thought that the "triangle design," otherwise so common elsewhere in the ancient world, was comparatively rare at Mohenjodaro.[31] He also noted that this design was quite different from the so-called "double-base" motif so popular in the Aegean. He also did not agree with the general opinion that these triangles seem to represent an attempt at portraying mountains.[32] The triangles are shown hatched or solidly filled up.

Similar is the treatment of squares or rectangles, called the "chequers" design. In another case, a hollow diamond is filled up with a "bead without ends." When Mackay first reported, only this one example of this unsual motif was known, although it is said to be common in Baluchistan and Anau.[33]

A motif which Mackay first described as the "hide motif"[34] (Marshall I, 327), but which Vats does not seem to approve or like,[35] is said to resemble the hide of an animal stretched out for drying. According to Mackay, "the portion of the jar to be so decorated was first of all divided into thin lines into squares, in each the motif was drawn.[36] In five cases illustrated by Mackay, the motif was painted in black either on a light or dark-red slip. In the sixth one it was painted on a cream slip.

A re-examination of all the eleven specimens illustrated by Mackay[37] shows that Mackay was not right in grouping all these together under one name. There are so many variations, and some are truly plant designs. Vats is probably right in holding that this motif was a mere resultant from the scheme of interlocking circles; or we would say that this and other motifs, particulary the plant or leaf motif, are combined.

The design described as the "comb-motif" is depicted on a sherd from Mohenjodaro.[38] Vats does not cite any example from Harappa. Of the five illustrations by Mackay from Mohenjodaro, the design appears on a complete pot only on a single sherd.[39] Mackay draws our attention to a few parallels elsewhere, of Susa and Hittite pottery. These are not available for study at the moment and without the context, it is difficult to opine on their nature. If we now examine the two clear examples given by Mackay in Marshall, we can only say that the description of the motif of "comb," be right except that in line-drawing number 13, the teeth of the comb are shown slanting, and in 16, secondly, there are two eye-like circles on either side of this "comb" design. As a rough and ready description this name of the design might be retained, but for a proper understanding, we need more detailed knowledge. For instance, on what kinds of vessels and where, in which room/rooms at Mohenjodaro, Lothal, Kalibangan, does this motif occur. Secondly, speaking ethnographically, do people, preliterate or primitive, employ the comb as a motif?

In these the motifs at either end have been described as the "sun motif."[40] However what Vats regards as "sun" or "star" motif is different.[41] He draws our attention to the occurrence of the "sun" or "star" motif on Cemetery H pottery but[42] these indeed are much better in quality and need a separate treatment.

Sun Motif in Cemetery H Pottery

A motif which might be described as the "spoked wheel," as a form or variety of the sun-motif, is depicted on the underside of the flat covers of the Cemetery H, Stratum II[43] and around the shoulder of jars.[44] Unfortunately little attention has been paid to the shapes and designs of this pottery. As pointed out elsewhere,[45] this pottery is superior in every way to that of the Harappans. Not only are these two motifs extremely well executed, but the others are skilfully painted.

On the whole there is a sense of design and arrangement, a sense of spacing. This may look as formal as a Dutch garden, but in the history of all man-made things, we find periods when man has grown out of illformed things and loved the symmetry of forms and arrangement. This is certainly true of the designs and paintings of Cemetery H pottery. I have been struck by this since I began to pay attention to this pottery in 1968. It must be emphasized that if the potter-artist could be so well trained and disciplined, having precision in symmetry of form and design, then his patrons, whoever they be, could not be "squatters" or less civilized than the Harappans.

The illustrations published by Vats[46] may be grouped on the grounds of context into the following:

(a) purely decorative motifs, consisting of
    (i) plant, (ii) animal, and (iii) geometric or motifs like the sun.
(b) decorative-cum-religious or didactic motifs, narrating a story.

In the former, we might include all the jar covers (Pl. LXIV, here Fig. 11) and most of the designs, painted around the shoulder of burial jars,[47] excepting a-b Pl. LXII. These two paintings, as pointed out by Vats long ago might represent stories from the Rig Veda. In any case these are our earliest narrative pictures, though their identification with the story narrated in the Rig Veda might not be accepted without more proof.[48]

From the point of view of artistic presentation, one is struck by the simple but symmetrical arrangement of pipal leaves in a row of two, three or five[49] (Pl. LXIV, 18-20) or the way in which a deer or peacock is depicted with wavy, flowing horns and features.[50] How graceful these paintings would look on a kuja-like jar can be seen in Pl. LVIII, 5. Here one should note how the potter-artist has sought to heighten the effect of the painting below by delineating the neck in one colour, black.

Pottery as Art Objects

The question may well be asked as to how would the people of the Harappan or Cemetery-H Culture have enjoyed these specimens of pottery? Would they be kept in the kitchen, or kitchen-cum-store-room, or was there something like a drawing-room as we have today in fairly large flats or houses. We would perhaps place it as a centre-piece of the room the long cylindrical vase with its fish scale design, or the *kuja* with the sun-design; Pl. LXI, 16 but was this the case some 4000-4500 years ago?

This question seems theoretical, but it is crucial to the understanding the life-style of the prehistoric people. It might be answered to some extent if in future excavations at the Harappan sites, the number and position of painted vessels are specifically noted. If more than one and even two or three vessels are found, say, in the room which has a *chula* and other household objects, then the conclusion would be that the Harappans kept such fine vessels in the kitchen. However if such vessels are found only in one or two rooms where there is no evidence of cooking, then the conclusion would be that these vessels were regarded as artistic pieces, and were meant for decorating the house, as they are today.

Such questions would not arise with the Navdatolians or the Inamgaon people, where there were only one-room houses, and all the vessels, painted as well as unpainted, were found in the same room.

3 Human Figurines of the Indus Civilization

BESIDES pottery, numerous human figurines of terracotta were found at the Indus valley sites: usually female, a few male figurines and animals, and a few stone statuettes of sandstone and limestone, the latter from Harappa only. There were also some model animals made of copper and bronze, and a couple of human figurines in bronze. A few objects were made in shell and faience.

All these have been discussed in detail by Mackay in *Mohenjodaro and the Indus Civilization* and then in *Further Excavations at Mohenjodaro*, as also by Vats in *Excavations at Harappa*. Those discovered later at Chanhudaro were discussed by Mackay. Now it is indeed surprising that so many female figurines should be found at Harappa and Mohenjodaro, and almost none at Lothal, Kalibangan and Surkotada, or at Amri, Kot Diji and now Gumla in Pakistan. However, the Indian as well as the Pakistani sites have yielded a few specimens of model animals in terracotta, and one or two in copper-bronze.

4835

From amongst all these, those which can claim any artistic significance have been included in this special account on art history. In the first place, we have to decide whether the model animals in terracotta *were all made for children* as toys, or some were toys for children and some made for other purposes. Then again we must decide whether some of these model animals were made by children, as Mackay repeatedly tells us.

None of these questions were raised when these reports on Harappa and Mohenjodaro were published, and none seem to have been posed even later. However, these questions have become relevant when archaeology has acquired a new dimension. Do children make toys of terracotta? After first making the models in clay, would they treat them with a red wash or slip and then bake them in fire? Granted that some precocious child or children would make such toys, and their parents bake them in fire, would these be made by children in several families, as would appear by the distribution of these animals at Harappa and Mohenjodaro? This presumption, though not an impossibility, does not seem to be probable.

What is most probable is that there were types of model animals, good, bad, indifferent, made either for different purposes or different classes of people, distinguished by wealth and social status. Unfortunately, Marshall, Mackay and Vats have recorded all the finds together, although mentioning their location. However, a study of *all* these finds should be made, noting not only the general location, that is the depth at which the model animal or figurine was found, but the room or the house, its general situation and other objects found with it. Probably a study of these model animals would throw light on the social stratification at Harappa and Mohenjodaro.

Failing such a prolonged study, what may be done at present is to classify all the human and animal figurines—terracotta, stone and metal into the artistic, or true works of art; the semi-artistic, with some pretensions to art; and the non-artistic. It is possible that the last group might contain all or many cult figurines, particularly female, and crudely made models of animals, made either on a mass scale or for poor classes of society, as is done today. Some objects are made on a large scale for a particular occasion or festival only.

In Class A we would place the small stone statuettes from Harappa, the two copper-bronze female dancing figures, the small terracotta head from Mohenjodaro, the few copper-bronze animal figures and the few terracotta model animal figures.

In Class B we may have a few terracotta figurines of men and women which though probaly originally made as cult objects, show some effort at portraying the human anatomy and expression, and secondly, model animals made as Bi.

Two Stone Statuettes from Harappa

It is indeed unfortunate that since these statuettes were found some 50 years ago, no effort was made either to search for more of such specimens or to clear away the mist of uncertainty about their exact stratigraphical position. When first reported, and even after Marshall included these statuettes, of course with some hesitation, but giving all cogent arguments about style, etc. for their inclusion, Mackay expressed some doubts about them. In retrospect, it is interesting to observe that at that time Mackay had no idea about their stratification, as practised and preached by Dr Mortimer Wheeler. So he harped upon his method of ascertaining the stratigraphical position of the red sandstone statuette found by Vats.

The red sandstone statuette is a torso, headless and broken just above both the knees. Its present height is 3¾ inch. It was found by Vats in the third stratum in a part of the site at Harappa where no objects whatever of the historic age have appeared (Marshall, I, p. 45). and (Vats, I, p. 75). This stone is not available in the Punjab, but can had in the Vindhyan range between Kota and Bharatpur or Mathura. "The treatment of the torso," as Marshall admirably described the statuette, "could hardly be simpler or more direct. The pose is a frontal one with shoulders well back and abdomen slightly prominent; but the beauty lies in the refined and wonderfully truthful modelling of the fleshy parts. Observe (for example in P1.X, c and d, here Figs. 12 (a-c)) the subtle flattening of the buttocks and the clever little dimples of the posterior superior spines of the ilium." Marshall then goes to say "this is work of which a Greek of the fourth century B. C. might well have been proud and even if Greek influence could be proved, it would have to be admitted that the execution is Indian" (Marshall, I, p. 46).

An interesting feature in this statuette, as in the other, is the technique adopted for fixing the head and the arms, and nipples of the breasts. Socket-holes have been provided in the neck and the shoulders for attaching these as well as the nipples. As Marshall has noted this technique is without a parallel in the historic as well as protohistoric cultures in India. It has not been found in any sculpture at Mohenjodaro or any other Harappan site. Marshall has praised its suitability for making small statuetters. However, as will be pointed below, this was a special technique developed by the Indus artist for making small figures with moveable limbs such as the head, arms and legs. This technique is seen in several toys of terracotta as well as faience. Hence to this extent Marshall's statement that it (the technique is also unexampled at Mohenjodaro, *Ibid.*, p. 45) needs to be corrected.

Further in the red stone statuette there is al arge circular depression in front of each shoulder, with a smaller circular protuberance broken off in the middle of it. It is not yet clear what these depressions were for. Possibly these were intended, as pointed out by Marshall, to be inlaid with circular ornaments, and in this connection draws our attention to circlets in the same position on a terracotta figurine from Baluchistan (Marshall, I, P1. XII, 5). These circlets however look identical with the circlets on the neckband of the same terracotta. If these circlets—whatever their make—were attached to the body and not stiched to the dress of the wearer, then this could be a very plausible explanation of the circlets on the Harappan figure.

The dark grey stone statuette is of a different nature than the one previously discussed. The dark grey stone might be available further north around Taxila, but not in the riverine Punjab.[51] "It is the figure of a dancer, standing on his right leg, with the body from the waist upwards bent well round to the left, both arms thrown out in the same direction, and the left leg raised high in front."[52] Marshall thought that the contours of the body appeared soft and effeminate. Still the figure was that of a male, and it seems that it was "ithyphallic." Marshall conjectured that the figure might represent Nataraja, but such a view would be an anachronism, though such thoughts are not misplaced, looking to the rhythmic movement, and the probable pose of the leg. Whatever it may have been, as Marshall further said, no parallel to this statuette is to be found among Indian sculptures of the later period.

Sir Mortimer Wheeler also recognized the artistic greatness of these statuettes. Though he doubted their attribution to the Indus Civilization, he regarded them as masterpieces of "miniature modelling."[53] Allchin thought the doubt was misplaced,[54] for, as pointed out by Marshall, the technique employed has so far remained unique.

Marshall's final verdict remains true to this date.[55] These two statuettes reveal anatomical truth in which the Greeks delighted. Their presence in India, 2000 years earlier, make us wonder whether, in this all important matter, Greek artistry could possibly have been anticipated by sculptors of a far-off age, on the banks of the Indus. Marshall drew the right conclusion that we also had drawn independently, namely that the Indus engraver could and did anticipate the Greek in the delineation of animal forms. We have only to compare the representation of the Brahmni bull on the seal and the faithful modelling of anatomy of these statuettes, to recognize that an artist who could engrave the seal in question would have had little difficulty in carving the statuette.[56]

Dancer in bronze

This small figure was found at Mohenjodaro. It too is small, a figurine of 4.25 ins. height, said to be rather rough workmanship with disproportionately long arms and legs. Hence Marshall thought it was a caricature. Like a good caricature, it gave a vivid impression of the young aboriginal nautch girl, her hand on her hip in half-impudent posture, and the legs slightly forward, as she beats time to the music with her feet. The modelling of the back, hips and buttocks, even in a small figure as this, is quite effective. Hence Marshall judged this as an instance of sound observation on the part of the artist. "The abandon expressed in face and links is quite realistic."[57]

Sir Mortimer Wheeler, while endorsing this opinion, even went further in his appreciation. He said, "this bronze dancing girl is the most remarkable of the Indus figurines. Pert and pertinent, she is naked except for her necklace and her many bangles. Her entire attitude is one of assurance and her head, expressively tilted, is a skilful impression of an aboriginal type."[58]

That this did not constitute solitary evidence of casting well-modelled figurines in the round was proved when Mackay found another such figure, also from Mohenjodaro.[59] It is of bronze, 5.2 ins. in height. Exceptionally well modelled figure of a dancing girl, it has suffered from corrosion, and the finer details have been lost. The same artist might have made both the figures, with probably the same dancer in view, but standing in different postures. This absolutely frontal position is usually one which a dancer adopts at the conclusion of a dance. In both figures one hand is on the hip, and the other brought in front of the body with the hand curved slightly upwards as if to hold something. In both figures the limbs, particularly the arms and the legs, as in the much later Warangal figures from Andhra Pradesh, are disproportionately elongated. Otherwise she stands erect with her feet close together, and if her features were well preserved, she would wear the same disdainful expression. A more detailed study of these poses might help to identify the poses with their traditional names.

Semi-artistic Figures and Figurines

Most of these figurines are found at Harappa and Mohenjodaro, and some at Chanhudaro, hardly 6 ins. in height usually about 4 ins. A few have been found at other sites such as Amri, Kot Diji, Gumla, in Pakistan, and Lothal, Kalibangan and Surkotada in India. While the non-occurrence at some sites might be attributed to the restricted area of excavation, this cannot be said of Lothal and Kalibangan. At these sites animal figurines both in terracotta and metal have been found, but not human figurines.

So in the account which follows, the human figurines from Mohenjodaro, Harappa and Chanhudaro, have been discussed in that order, as it facilitates reference. It would appear from a re-reading of the accounts of Marshall, Mackay, Vats as well as brief comments by Wheeler and Allchin, that only a few striking figurines such as female figurines with fan-shaped, pannier head-dress, or the male figurines with half-closed eyes, beard or shaven upper lip, have received the attention they deserve. Many others, though described in detail by Mackay, and a few also referred to by Vats, have remained unknown to scholars, students and the general reader.

It was a revelation for me to realise that the Harappans were after all not so much materialistic or religious or cult-minded that they ignored other aspects of daily life. The appearance of men, women and children, or the antics of animals like the squirrel did appeal to them. In actual fact these are the only miniature or otherwise models in terracotta, faience, and metal in the whole range of Indian art which do record the ordinary activities of life, historic or prehistoric.

The few terracottas from Kausambi, Ahichhatra and other sites in U.P., those from Taxila, or from Andhra, Satavahana sites like Ter and Kondapur, are primarily of a cult type. They may give us some idea of the current hair styles, but they do not portray many other facets of life.

The human figures of the Harappans, on the contrary, might be grouped on technical treatment, into (i) hollow or double mould ICONS, and (ii) those portraying events of life, such as:

(*a*) women at pregnancy, and various stages
(*b*) physical exercises
(*c*) methods of dressing the hair by men and women
(*d*) various types of head-dresses
(*e*) figures seated on chairs or sleeping on a cot
(*f*) women doing household work
(*g*) men and women with some physical defect

None of these model figurines were the work of children, as Mackay asserts, and as do Vats and Marshall at times. All these are the work of unknown Indus artists who either prepared some of them for children, some cult figures for daily worship in the house, and some as funerary figures. One such funerary figure was found by Vats in a post-cremation urn in Cemetery-H at Harappa, showing incidentally the close relationship between the Harappan and the culture of the Cemetery-H people.

Whatever be the reason for their production, the artists who produced these works have given us some idea of the life of the Indus people at Harappa, Mohenjodaro and Chanhudaro. They did see life around them and have portrayed it partly realisitically, partly impressionistically, and partly as cult images according to the ideas then prevalent. At times the product is realistic, as when depicting a young healthy woman conscious of her slim waist and full breasts (Fig. 16) or another who in middle age has lost her charm (Fig. 17), with hers flabby breasts and elongated. This an artist of the historical period could do only in the case of an emaciated goddess (*Krishodari*), but never otherwise, for all his women had to be young and beautiful with full bosoms.

In a few extant examples the artist has tried to portray the beauty of hair in both men and women, in others the fingers of the hands and feet. He has been attracted by the rotundity of a not-too-tall, pregnant woman. This might be a caricature as Wheeler says, but we do not find caricatures again until the modern age. Lastly there are a few terracottas, masks as well as solid figurines, where one notices attempts at portraying facial expression.

With these few comments, we would only list and illustrate the specimens.

Terracotta Figurines Portraying Exercises[60]

S.R. Rao has described these as various yoga postures or *asanas*,[61] thereby committing another anachronism. In these eleven postures, nos. 6, 8, 9, and 10, the person is shown with folded hands, as if doing *namaskaras*. This typically Indian gesture is, without doubt, the earliest portrayal of the *anjalimudra*, though the name might not have been used then. In nos. 3 and 8, the knees are drawn up, with hands in *anjalimudra* as, in no. 8 No. 13 (3.4 ins. high) where a person in shown standing or sitting on folded legs, with the arms stretched back horizontally is certainly not an yogic *asana*, and as a physical exercise is also quite rare.

Realism in the Woman's Torso

In the numerous figurines found at Harappa, Mohenjodaro, and

Chanhudaro, the female breasts are mostly shown in the crudest possible manner. A first impression on looking at these figures would be that either the artist did not know how to portray the female bust, or that these were only impressionistic figures, probably for cult purposes or toys. However in a few cases even these terracotta figurines exhibit well-modelled busts. When this feature is found associated with a very slim waist one has to conclude that this was the ideal of female beauty, even in Harappan times. This survived and appears in the early historical period, in the Yaksinis from Mathura. One has just to place side by side the figure from the lower levels at Mohenjodaro and the Mathura bracket figures. While the waist is highly attenuated in the former, the breasts are surprisingly well modelled and not exaggerated, and so also are the thighs.

That this part of the woman's anatomy was regarded as a sign of beauty and that its exposure was deliberately attempted is nowhere better illustrated than in another figure.[62] Unlike numerous terracotta figures, here the back and front of the woman's body are covered from the knee up to the breast. The latter is fully exposed, as in Cretan figures. Her beauty is enhanced by an unusually large number of necklaces, which hide the rest of the chest, and the entire neck up to the chin. In this figure alone the navel is concealed, otherwise it is as always shown as in the figures of the historic period.

This correct portrayal of a young, possibly unmarried, woman may be compared with a similar portrayal of an older woman seated with drooping, elongated breasts.[63] As against these few correct portrayal of women's busts, a complete disregard is shown in others which are mostly cult figures of mother goddesses. For in certain figures,[64] these are just shown as cones, to be kept anywhere on the chest!

Caricatures

As opposed to these correct or indifferent portrayals of women, there are a few figurines where the women have been shown standing on short tubular legs, with a bulging belly, supported by curved arms and a face with prominent nose, bulging round eyes and a turban-like head-dress.[65] In another, the narrow waist is effectively contrasted with a bulging belly, and heavy thighs.[66] In others in the same plate, as well as in those from the lower levels illustrated by Mackay,[67] and similar ones from Chanhudaro, as well as the four illustrated by Vats,[68] are either fertility figures or caricatures of women in pregnancy. At Harappa, many of these were found in the Great Granary area.[69] If this context has any significance, then we might regard these as "fertility figures."

There are a few model figurines which are described as portraying women kneading dough in a shallow rectangular trough.[70] Apparently this description is wrong, for such a pose is not convenient, (as far as known to me and never adopted for kneading dough. This pose is most suitable for winnowing the chalf, etc. from grain, which is also indicated by the shape of the tray that is straight-sided. This in fact is a winnowing basket or tray. In another example a woman is shown carrying loaves in a platter, or in a basket kept over her head.[71] It is interesting to see how the artist has tried to convey this idea. Evidently, either because this is a miniature terracotta model, or because the artist has no sense of perspective, or because he wants to show what the contents of the basket are, he shows the basket resting at an angle on the hand.

With this we might also compare two figurines seated on a stool. Not only these testify to the existence of such seats in the home, but they provide a rare example of how deities were to be represented. Except the two or three figures of proto-Shiva figures on seals, shown seated with folded legs as in *padmasana* or *vajrasana*"[72] we have no other example. With this we might also add a figure seated with his legs thrown astride an oval pillion-like seat, a fashion now re-introduced in some aristocratic families.

Harappa has also produced three rare figures[73] where women dressed in a loin cloth, secured by a three-string girdle and decorated with large discs, employ both their arms and hands in supporting some object placed over their head. The object has volute-like ends, with a small depression in the centre.

This again is a rare pose, adopted by women carrying a heavy large load, or carrying a small but precious or delicaet object, such as a pot with lamps over the head during the *Navaratra* (nine-day) festival. Here the object appears to be small: it might well be a seat for carrying the figure of a deity. Though the figures themselves are not realistically portrayed, their pose is certainly realistic, and again very rare in the whole range of Indian art.

Headwear and Hairdressing

In the art of the early historic period or later, queens and goddesses are rarely shown with head-dress such as a *mukuta* (crown), even though they might be accompanying their consorts. This is not the case in the Indus terracottas. Here besides the commonly illustrated, fanshaped, or pannier-like head-dresses, one can count at least four or five other fashions for adorning the head of women. We may distinguish the following forms of head-dresses:

(1) fanshaped
  (a) short or squat, just over the head[74]
  (b) short with pannier-like receptacle[75]
(2) rectangular[76]
(3) conical (male-or female?)[77]
(4) circular, with boss-like side attachment[78]
(5) tall, held in position by a thick pigtail[79]
(6) with a thick semi-circular object, placed across the head.[80] This may be a thick pigtail taken from behind the head and tied over the head.

(7) turban: It is not quite clear whether this is a head-dress or a turban made of strands of cloth and tied over the head, with a partition in the centre, or a method of dressing the hair. It is interesting to observe that this feature is seen at Mohenjodaro,[81] Harappa and even at Chanhudaro,[82] in the case of females who are shown pregnant[83] or with flabby, pendulous breasts, or some working hard at winnowing.[84]

(8) turban or hair-style: Of a similar nature is the one pictured from the early levels at Mohenjodaro.[85] It is the only one, and hence unique. Whether it is a method of wearing a turban or a hair-style it is extremely significant, and identical to the fashion of wearing the hair in early historical times. The turban or the hair are in three strands, wound round and over the head from ear to ear. Each strand is additionally decorated with tiny holes, representing either flowers or something else stuck into the hair, or stiched over the cloth. The whole is kept in position by a central, round ornament, later called *Cuda-mani.* Here it seems to have been made of gold.

The Indus artist, whenever he chose, carefully depicted the method of dressing the hair. On seeing the illustration or the person, one could say whether a comb with fine teeth or large teeth was used, and the nature of the style adopted. Besides the well known heads of steatite or limestone, showing the careful, even mechanical, way of grooming the hair and beard, there are two tiny ones illustrated by Mackay.[86] The first is a fragment in black steatite of a woman, now only 1.1 ins. in height. Only the back of the head remains, but it was realistically carved to represent flowing hair, well oiled and groomed.

The second figure, only 0.58 in. in height, is made from white steatite.[87] Mackay thought that "this little figure represented a deity and hence was of special interest." The curled horns probably representing a ram are worn on either side of the head, and long hair down the back, or some kind of head-dress. In every way, its small size, its peculiar hair-style, and the Mongolian feature, this is a unique figure but unfortunately not so well known.

Facial Expression

Besides the oft-illustrated dancer, and the limestone head and bust mentioned before, there are a few masks and terracottas which are surprisingly expressive of inner emotions. These give some proof, if needed, that the Indus artist could express emotions as well, as could the later Gupta sculptor. The first in this category is obviously the steatite bust,[88] now 7 ins. high and assigned to the late period. In many ways this unique figure foreshadows the later images of Hindu art and religious practices. The figure is shown as frontal, keeping the right shoulder open, and the left covered by a cloth, with a trefoil ornament. This pattern could well be the famous *tridala*, leaves of the *bilwa* tree, now sacred to Shiva, as thought by the late Rev. H Heras.[89]

The eyes are shown half-closed (*unmilita*) as if in meditation, and focused on the tip of the nose which is now broken. The figure wears a short beard and whiskers, and a close-cut moustache. The eyes are long and half closed, and one eye has still the shell inlay. The nose is well formed and of medium size, springing from an exceptionally low and receding forehead, with remarkably full and fleshy lips. The curiously shaped ears resemble double shells with a deep hole in the middle.

The hair is parted in the middle and brushed over the back of the head, where it ends in short locks. Around the head is a plain fillet of some woven material, which is fastened at the back in a knot with loose ends. This fillet is ornamented with a circular buckle placed in the middle of the forehead. A similar circular buckle is seen on the portion of the armlet on the exposed right arm.

Just below the ears, on either side of the neck, two holes have been drilled. This is an unusual feature and might have been intentionally done to place an ornamental necklace of precious metal.

Portrait of a Yogi

The bust is exceptionally smooth with almost a polished surface, a contemplative look, and above all a shawl with its trefoil decoration. the orb of which matches with that of the circular (ornament) on forehead and on the armlet. This symmetrical composition is intentional and must be significant. As Mackay thought, here there is a definite attempt at portraiture, possibly of a cult figure or a personage who was deified. Though the chamber in which it was found, was "of most peculiar construction," still it could not be regarded as a temple.[90]

Although this might be true, it is necessary that the entire evidence is re-examined, particularly chamber 1, Block 2, Section B, of the DK area where it was found at a depth of 4 ft. 6 ins. below the surface. For Mackay's ideas of what a shrine chamber should be or what a shrine chamber should have been, are likely to differ from our experience. In particular, other contextual details might help towards a more conclusive identification.

Marshall, who had a much better knowledge of Indian culture, thought that this yogi-like, thick-lipped person, with the broad nose, low forehead, and stretched neck did not represent any particular individual; but that it was a conventional representation of a deity or religious teacher.[91]

In addition there is a female head of grey limestone.[92] It was badly weathered when found. Notable are the long, narrow eyes beneath the receding brows, the right eye still having the white stone inlay. The ear looks primitive, but as Marshall explains, this feature is due to the fact that in this figure, as well as in two others, the ear was covered with an ornament and hence deeply drilled.

Of the Late period again is a yellow limestone head of a male or female 7.9 ins. in height.[93] It is remarkable for the curious way of dressing the hair, which is said to have been gathered up in a knot at the back of the head. Two oblique depressions which run from right to left (left to right) across its upper portion, apparently mark off three separate twists of hair. A number of vertical lines on the lower portion of the knot suggest strands of hair lying close together.

Mackay conjectured that this may have been the customary fashion of hairdressing for men, and said that this fashion could still be found in India today. A cord or fillet worn round the head served to keep in place the knot of hair at the back of the head.[94]

The facial features again are interesting. The mouth is small with fleshy lips, and the chin prominent. A curious projection just below the chin may be a crude attempt at a beard, or it may be the Adam's apple.[95] The eyes are mere slits, and were formerly inlaid with some plastic material. The nose is small, and so is the cranium, this being in contrast to the broad, grey face.

Comparable to this is a male head, in yellow limestone. It is 6.9 ins. in height.[96] The hair as in the figure described above, is gathered up in a knot at the back of the head, and kept in position by a cord or fillet. In this head the strands run obliquely right to left, again the division of the hair being in three strands. Below there is a strand of hair where the hair fall vertically. Curious however, is a close-cropped beard which joins the whiskers. These are carried well up beyond the top of the ear.

The features are quite expressive. The cheek bones are very prominent, wide apart, and of medium height, with deep-set orbits. The eyes are almond-shaped and slightly wider than those in other figures with a provision for an inlay. The edges of the sockets are slightly raised to enhance the effect, a feature also noticeable in the yogi-like bust. All these features, and the careful finish of the hair, led Mackay to conjecture that here again was an attempt at portraiture. This was a view which Marshall also endorsed and added, "We can believe that the likeness was a tolerably good one." As for the curious distortion of the ear, which looked saucer-like, he said, "there must have been some particular reason for it."[97]

Male Alabaster Statue

A small headless statue of veined grey alabaster,[98] 11.1 ins. high, had aroused interesting comments, but was unfortunately ignored by subsequent writers. It was found at Mohenjodaro and assigned to the Late period. This was also a portrait, the figure of a man shown seated in an *asana* with his right knee. The left arm, bent almost at right angles, clasps the slightly raised left knee. Both Mackay and Marshall failed to note that this pose which was not quite usual in prehistoric sculpture, was often encountered in figures of the historic period. By then the posture of the body and position of the hands, called *asana* and *mudra* respectively, had come to acquire a religio-psychological significance. In this particular case, the upper part of the body seems to have been bare, or probably the right shoulder was kept so intentionally. This shawl or upper garment was probably very thin, and is shown likewise, whereas the lower garment was kiltlike and fully covered the entire lower portion.

Now, while Mackay appreciated some attempt at modelling the right arm and the hand, he condemned the sculptor for the poor rendering of the left arm and the hand. Marshall knew better, having had experience of the Indian tradition. He rightly pointed out that since the left arm is hidden, it did not require much definition in modelling. If the mantle or the kilt was originally painted then the figure would not have looked so deformed or uncouth. Hence he has praised "the sculptor's skill in the modelling of the bare right arm, shoulder, and chest, and in imparting a certain softness of texture to the skin."[99] It must be said to the credit of Mackay that he did appreciate "the endeavour to show the muscles, and free the arm from the body," and thus concluded "that sculpture at Mohenjodaro was by no means in its infancy."[100]

Half-kneeling Figure

Another alabaster figure[101] was found in several pieces, and measured 16.5 ins. in height when joined together. The figure is in a curious half-kneeling position, with the right-knee raised. The hands rest on the knees, between a skirt-like garment is stretched. The eyes were probably long and narrow, and set obliquely. The mouth is now very indistinct, beneath which is a short, cropped beard. The ears are more naturally represented than in any other figure, possibly because these were not covered by any ornament. A fillet around the very low forehead is tied in a knot at the back, with the ends hanging down the back of the shoulders. The left ear can just be made out at the back of the figure. Either the figure was originally intended to be grotesque, or it looks so because it was exposed to weathering. Anyway, the peculiar pose "almost half-kneeling" with both hands placed on the bent knees, possibly an open mouth, a fillet round the forehead and falling in two strands on the shoulder behind, all go to indicate that this figure probably represents a deity.

This half-kneeling figure recalls a terracotta figurine from Chanhudaro, 2.39 ins. in height. Solidly cast, it shows a male, possibly a young boy, with both his hands on the folded knee, a pose which reminds us of a Muslim in prayer.

Besides these classical Harappan sites, Kalibangan has given a remarkable head in terracotta, about 6 cm. in height and 7.5 cm. in breadth. It is unlike anything found so far. The figure is a male with prominent chin, and well-defined lips, eyes and a receding forehead. The figure is said to be "reminiscent of a similar specimen from Mohenjodaro" (*Indian Archaeology—A Review, 1960-61*, p.32, and cover). As far as the facial expression is concerned this is correct, but the details of the coiffure and dress are different.

During all these years no stone statuary has been found by Wheeler and his successors either at Mohenjodaro or Harappa, either in India or Pakistan. So we have to rest content with these few broken, mutilated figures described above. We have seen how Marshall spoke in very appreciative terms of the small statuettes from Harappa. He also tried to understand the good features in the few figures of limestone and alabaster from Mohenjodaro. On the other hand Mackay in his concluding remarks said that since the sculptors at Mohenjadaro produced mainly cult figures or figures of deities, they did not have much scope for individuality or experimentation to turn out true portraits.[102] Yet this is true not only of the period or age of the Indus civilization, but also for the entire range of Indian culture. Compared with other countries, particularly Greece and Rome, or even prehistoric Egypt and Mesopotamia, India has contributed very few portrait images to the world. By and large, Indian art has been hieratic and religious, and hence conservative, leaving little scope to the individual artist for originality.

At the same time, one cannot agree with Mackay that "apart from statues, the sculptors at Mohenjodaro had little experience in the carving of stone." For carve in stone they did. The numerous seals in steatite, limestone and a few in copper are a testimony to his skill;

whereas the few small statues, particularly from Harappa, are such that any country could be proud of, as Marshall has asserted. The lack of stone, which Mackay cites as an additional factor, was probably responsible for the absence of even moderately-sized figures of man and animal.

Masks

Horned terracotta[103] masks have been found at Mohenjodaro, but surprisingly not at all at Harappa, which has yielded so many human figurines in a variety of poses. Mackay has only remarked on the likely function[104] of these masks, but the fact that those from the Early levels at Mohenjodaro "have very oblique Mongolian eyes which were carefully touched up" shows that these masks, whatever their function, have an artistic value. They portray *truthfully* whatever they were intended to portray. They might be decorative and/or religious, but they also tell us that the people of Mohenjodaro had a clear idea of what a Mongolian looked like, from the north-eastern frontier.

Four masks from the early levels were found between the height of of 13.4 ft. and—22.3 ft. at very many places, the first two (nos. 1-2) in rooms of houses. They are all hollow, made of fired clay in a mould, and have no slip whatever. In size they vary between 1.78 ins. to 2.6 ins. Thus they are quite small, though their photographic reproduction is likely to convey a wrong impression, while nos. 2-4 show a Mongolian slant of the mouths as well as the eyebrows strongly defined. The first one appeals to me much more by its fine, peaceful expression, and it is even more beautiful than No. 25-26 from the Upper level, which is, discussed below. It reminds me of similar expressions on the Buddha, Bodhisattvas, and Brahmanical gods such as Siva and Vishnu of the Gupta Period.

The remaining features such as the horns which in one case curve to the front instead of upwards, and the usual holes on each side of the masks for tying or sewing it on, are not relevant here. They might however prove useful in establishing culture contacts with Mesopotamia and other ancient countries in the west. In the third mask the short beard is represented by very shallow incised lines, and is said to be unique among these masks.

That Mongolian features had some special attraction or fascination to the people of Mohenjodaro is proved by a unique double-faced head of fired clay. The double head might have been attached to a single body, and might represent a two-faced deity.[105] It has been rightly praised for its technical excellence in the use of a double mould.

The four masks from the Upper levels[106] as Mackay has observed, are of inferior worksmanship but No. 26 with a short beard shown only in profile appears positively beautiful. Mackay was also struck by this feature, and said, "There can be no doubt that this represents the head of a deity, and of one whose attributes seem to have been beneficent, if we may judge from the expression of the face. *In fact, in none of the figures of clay or stone hitherto unearthed is such dignity* and *respose expressed as in this mask*."[107]

The mask shows traces of a chocolate coloured slip, and is 2.98 ins. high, and was found at a depth of 9.7 ft. in room 13, first street, east of Block 25. How we wish that we had some more details as to where exactly was this small mask found in room 13, and what were its other associates. This information alone can bestow some more meaning to this beautiful head.

Probably such masks must have been found elsewhere, in sites such as Lothal and Kalibangan, but of which we have no idea, as full reports are not available. If they are found, we would very much like the excavators to give the full context of the specimens, if this has been noted on the site.

4 Animal Representations of the Indus Civilization

TOY dogs, both in terracotta and copper-bronze have been found, the former in large numbers, particularly at Mohenjodaro. From the way these are represented, there is no doubt that not only these were domesticated, some millennia earlier, but the dogs were kept as pets, and used as watch-dogs. Both at Harappa and Mohenjodaro, several specimens, have been found with straps around the neck, and in one or two rare cases they are tied to a post. There was the opportunity for the artist—potter and craftsman to carefully observe the various species, and portray them accurately in terracotta and metal. Here only select examples from Mohenjodaro are discussed and illustrated.

When Mackay first wrote[108] he thought that with the exception of one, all were roughly modelled, and hence made by children. This opinion he must or should have given up, because in subsequent excavations many more fine specimens of dogs were found. At least three types are fairly well or accurately represented. The first is a mastiff in steatite and "almost exactly resembles the English mastiff of today,"[109] with its short ears and fold between the eyes, which were probably inlaid. In another specimen, made in faience,[110] the tongue is shown hanging out, while No. 18 shows the dog tied to a post by a broad band passed around its neck. A pellet of clay represents the buckle or other fastening of the band.[111] Another specimen (No.20) is remarkable and alert looking.

Anyone who reads Mackay's description and then examines the photographs will have to say that Mackay was unnecessarily prejudiced when he declared these as products of children. Not only children but even the ordinary artist could not so realistically portray the features of these different species of dogs. These are evidently the work of an accomplished artist.

Secondly, the fact that the specimen No. 17, Pl. XCVI is made of faience and not of ordinary clay should make us think again before advancing such views. For making an object in faience is a complicated process. Nobody can make a thing out of clay, and then take the trouble of converting it into faience.

Apart from these two examples some more model dogs were found in the further excavations at Mohenjodaro.[112] These have been arranged and discussed level-wise as those from the Early levels and the Late levels. From the Late levels two have been illustrated[113]: No. 16 in bronze and No. 17 in pottery. Though the latter is said to be "roughly modelled," both show "a tightly twisted tail, lop ears, and a short powerful muzzle." The copper-bronze dog has also a stout collar around its neck.

Mackay further thought that these "were accurate representations of a breed of dog that perhaps still exists in Sindh—a dog characterised by a compact body, definitely curled tail, short legs, large hanging ears, and a shorthead."

Models of a third type of dog were found in the lower levels. These have longer faces, upright tails and pricked ears. They reminded Mackay of similar species from ancient Egypt, Mesopotamia, and the pariah dog of the present day. Though not a student of dogs, I think, in these five specimens, at least three different species seem to have been represented. No. 11 does not seem to be a dog. Thus we have (a) 4-6, (b) 12, (c) 15. Here type (a) might be compared with a small copper dog figurine from Lothal. It has an upright tail, a little protruding muzzle, stout, compact body, and short legs.[114] The second type is represented by No.12.[115]

Antelope

For some reason very few model representations of deer or antelope have been found in any of the sites of the Indus civilization. Mackay[116] illustrates only two from Mohenjodaro. Of these No.1 Pl.LXXVII is in copper-bronze. The second has a long tail, and does not appear to be an antelope, though one might have been intended, as Mackay thought. The one in metal is 1.4 ins. long, and was carefully cast, though some of the details have now disappeared due to corrosion. It has slightly curved horns. Mackay recalls an identical representation in a painting from Nal.

Rhinoceros

As in the case of the dog, Mackay's first reaction is that since the animal was usually crudely made, in every case it was a child's handiwork.[117] All the four examples are about 4 ins. in height, and were found in different areas and at different levels at Mohenjodaro. This fact is significant. For toys for children could not be everywhere, or at all times be the work of children. Secondly, there is the method of representation. Thirdly, there is an almost identical method of representation, observed and noted by Mackay himself. The eyes are represented by incised pellets of clay, and the folds of the skin on the shoulders and hind quarters by strips of clay pricked to give the characteristic warty look.[118] Though he does not expressly change his opinion in *FEM* he cites a very good model from the upper levels. Here the folds of the skin are represented by strips of clay pitted all over to simulate the great horny bosses, some of which on the actual animal are as much as in inch in diameter. In contrast to this, the two specimens[119] from the lower levels are very poorly done. This raises an important point, whether the children or the artists of this period were more careful, observant and more intelligent than those of the early levels.

This difference in delineation of the rhinoceros can also be seen on the seals where of all the three or four, that on the seal *FEM* No. XCIX, 651 is indeed the best. That these toys were not the work of children is also proved by the few examples of rhinoceros from Harappa.[120] One is made of burnt steatite, and is 1.15 ins. in length. Here the animal is shown in a sitting posture, and its prominent snout, short horns, and rough hide are shown with great fidelity. Particularly well executed is its great girth. That the specimen was regarded as a piece of art may be inferred from the fact that "there is a pin-hole in the underside, evidently for fixing it to a table or other flat surface." Three other specimens are not so wellmade, though interesting for showing a strap or collar round the neck of the animal, indicating that it was domesticated.[121] No. 77 is from the Cemetery-H, showing its affinity to the Harappan figurines.

Only a couple of rhinoceros were found at Chanhudaro, and these are inferior in every way from those of the twin capitals. We may regard as fairly realistic the terracotta head from Lothal.[122] This also seems to bear a collar round its neck.

Horse

Was the horse known to the Harappans? The complete absence of this animal on the seals, as well as its dearth among the toy animals from Harappa and Mohenjodaro, endows a special significance to the terracotta specimen from Lothal.[123] Here though the eyes are not seen or shown, the rest of the horse's anatomy is very faithfully depicted. Particularly noticeable is the thick, short and hairy tail.

The occurrence of this beautiful example at Lothal leads us to recall the solitary example recorded by Mackay during his *Further Excavations at Mohenjodaro*.[124] Mackay had no hesitation in regarding this animal as representing a horse, though unfortunately, both the tail and ears are missing; hence he tells us to regard the identification as tentative. However, he notes the arched back and the comparatively thin neck in this model. The eyes are slightly raised and the pupils indicated by incisions. The eyes were probably inlaid. The nostrils are indicated by holes and the mouth is represented as slightly open.[125]

All these features, "the very careful modelling and finish, preclude him from regarding this toy as the handiwork of a child." The specimen was found in the upper levels and is 4.7 ins. long. With the occurrence of horse's bones in all the levels of Surkotada in Kutch, Lothal as well as Mohenjodaro, it is certain that the horse was known to the Harappans. The question is only whether this was so from the earliest period or later. Since the Carbon-14 dates of Surkotada do not go beyond 2000 B.C. (though there is one early date now) and since even at Mohenjodaro, the terracotta model was found in the deposits of the Late period, it would appear that at least by 2000 B.C. the horse had become familiar to the Harappans. Then it was fairly well represented at Rangpur, where we have its terracotta figurine,[126] and a painting on pottery.[127]

Bull

Of all the animals depicted in terracotta, faience, steatite, stone, or on seals, the bull has been often rendered faithfully and artistically. Its various specimens unearthed at Mohenjodaro, Harappa and Chanhudaro, and those few published from Rangpur, Lothal, and Kalibangan enable us to say that the two main species of the short-horned and humpless, and the long, curved-horned, and humped bulls existed in the whole of Northwest and Western India, from Baluchistan to Saurashtra. They were domesticated and well-known to the populace.

Furthermore there is little doubt that the bull was worshipped, that there was a bull cult, and that the bull was probably carried in a procession as on the *Pola* today (the new moon day of September or *Bhadrapada*), and its small effigies carried on polls. Small amulets were perhaps worn around the neck as do the sect of the *Lingayats*, today, though this itself is a very late practice of the 12th century started in Karnataka, and then spread to many parts of south India. Hence we find several specimens of bulls with garlands, hollow effigies, and once a painted terracotta horn with a hole.

It is equally true that the great muscular strength of the bull was admired, and the artists made an attempt to portray it faithfully in several mediums. We can compare this to the oft-repeated expression in Sanskrit literature *vrisa-skandha*, having the shoulders as strong and broad as that of a bull. From the way some of the small specimens in shell, with one surface flat, have been made indicates that these small bull heads were pinned on wooden or some such blocks, and kept on a table or fixed on to the wall. The small terracotta, steatite and copper-bronze specimens were similarly exhibited as art objects.

The remaining bull specimens would fall in the third category of specimens made as toys for children. However, I would again assert here that the view that some crude or non-artistic specimens were made by children[128] is unjustified. The other observation of Mackay[129] that many specimens of humped variety of bulls occurred in the lower levels at Mohenjodaro, and fewer in the upper levels, whereas those of the ordinary bulls occur throughout, is largely an archaeological problem. It may be solved and understood by a careful excavation.

With this preface to the section of bulls, we shall discuss a few select artistic specimens of bull figurines in terracotta, steatite, stone and shell.

It is rather surprising that only figurines of ordinary or short horned bull are found so artistically made at Mohenjodaro, and then at Lothal and Kalibangan. So far they are not recorded from Harappa and Chanhudaro, whereas the Brahmani or the long, curved horned variety is found on seals on all the sites. The one specimen cited by Mackay from Mohenjodaro[130] shows the full front, with long incurved horns, but the representation is flat and lacks all anatomical details.

Mackay's statement[131] made 36 years ago, that Mohenjodaro has so far given the finest models of the bull remains true even today.

The first one[132] is a hollow pottery figure, 6.2 ins. long, made of light clay coated with a smooth, cream slip. It may be a rattle as there is a pellet inside. It was made in a mould, with the details added afterwards. A very powerful short-horned bull is represented, the heavy wrinkles around the neck and the folds beneath the throat being faithfully copied. There is a garland or ornamental collar around the neck. Stratigraphically it belongs to the intermediate period.

The second example[133] is also hollow, 5.25 ins. long with a cream slip. It is said to be handmade and not in a mould as the first one. Great stress is laid on the details which were cut with a graver before baking. Around the neck there is a garland or plaited rope. Stratigraphically it belongs to Period I.

Among the few terracotta figurines of model animals found at Lothal[134] and Kalibangan,[135] there are two almost identical examples. The former is about 10 cm. in length, and the latter 8 cm. Either the artist at respective sites copied the parent example or executed it independently, but the source of the inspiration is undoubtedly Mohenjodaro. It is not ascertained whether one of the examples is hollow as at Mohenjodaro and entirely handmade, or partly so and partly made in a mould. The example from Kalibangan is solid.

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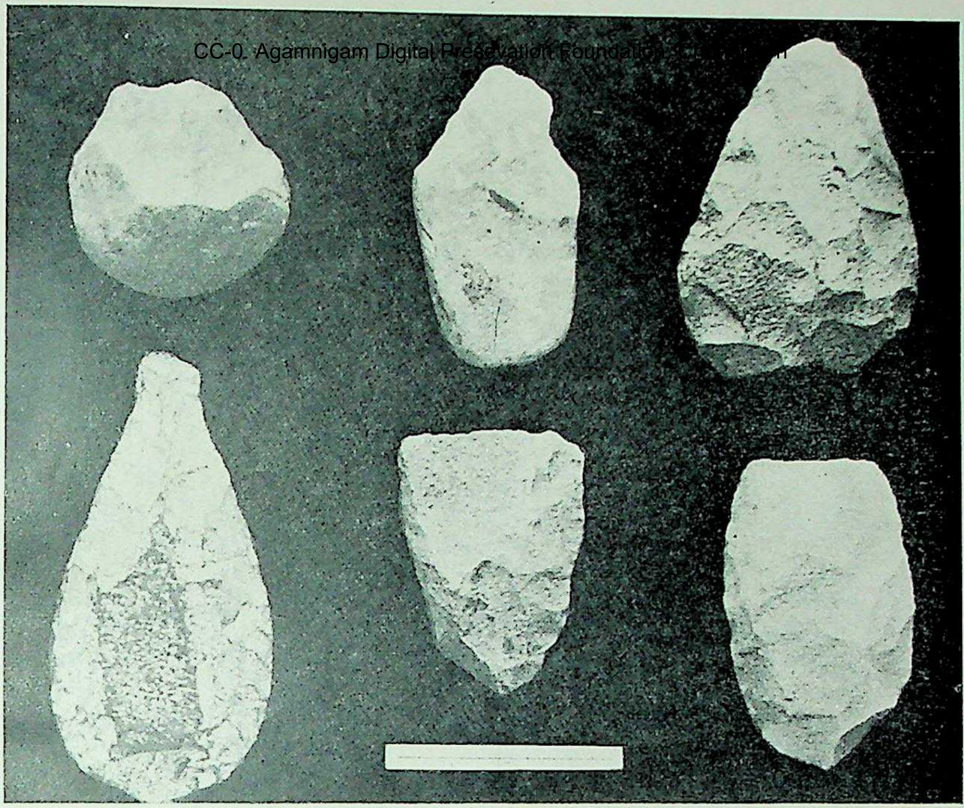


FIG. 1: Palaeolithic tools: choppers, handaxes and cleavers

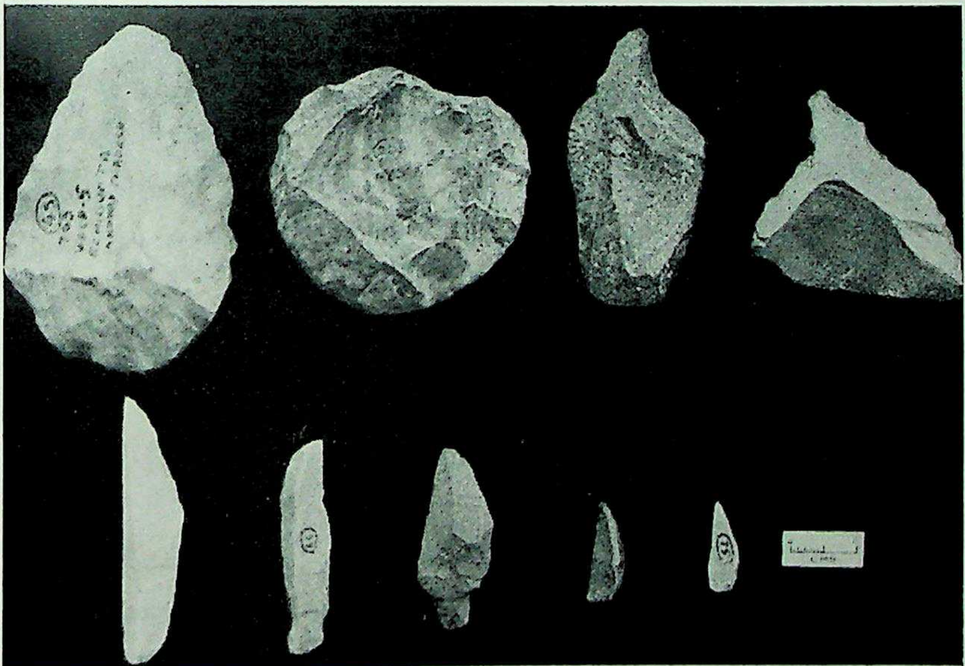


FIG. 2: Palaeolithic tools: blades, bofers, burins

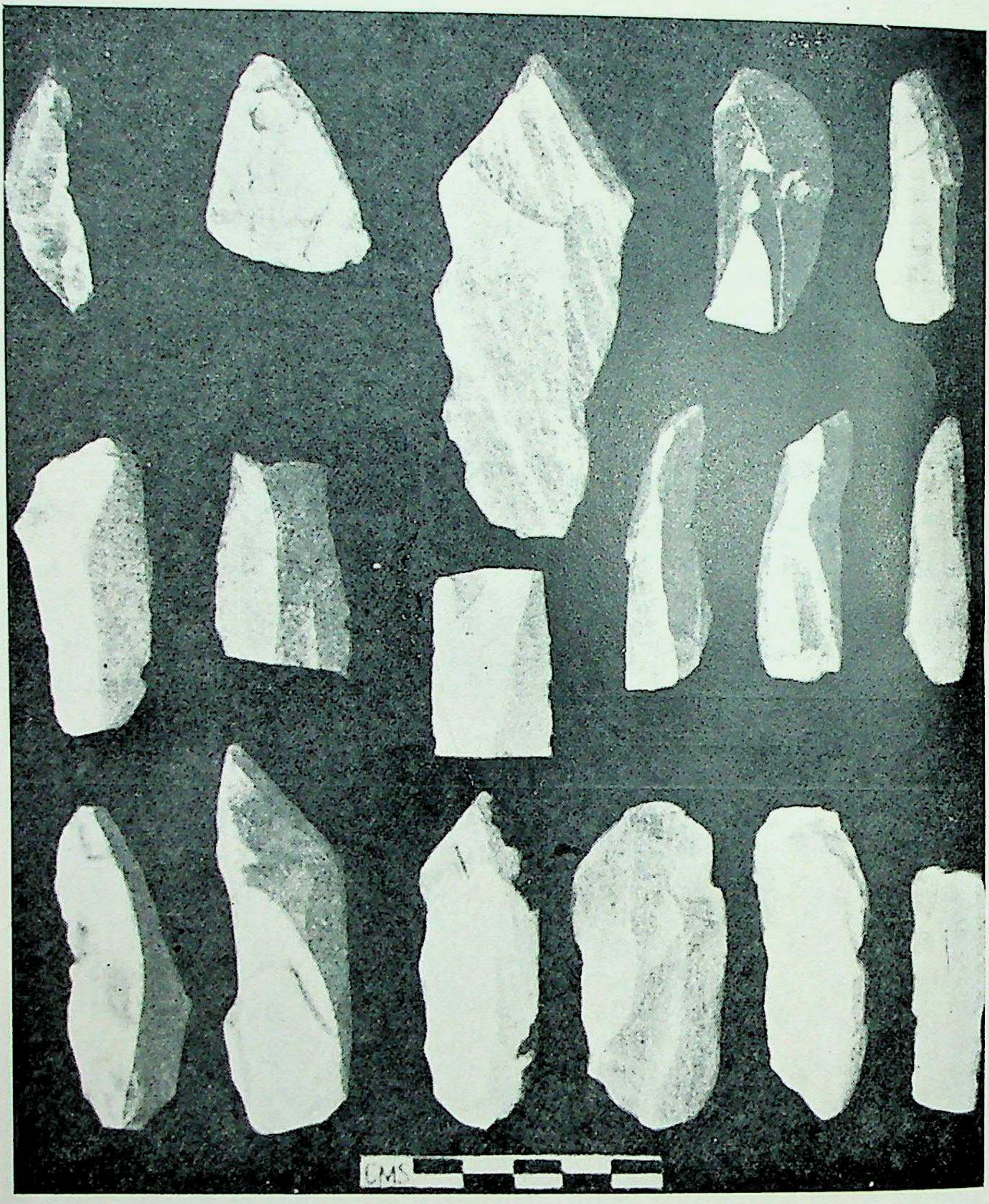


FIG. 3: Blades, burins and points from the Belan valley, U.P.

CC-0. Aga on Foundation, Chandigarh

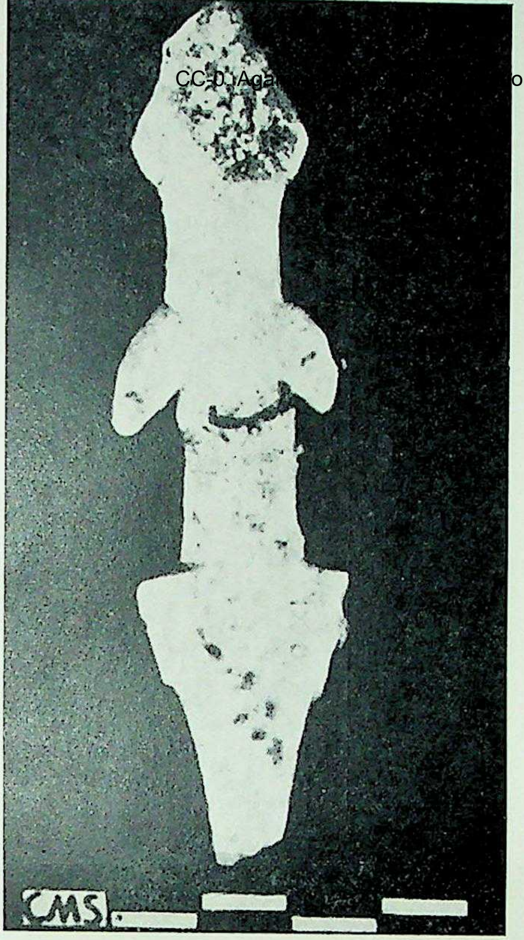
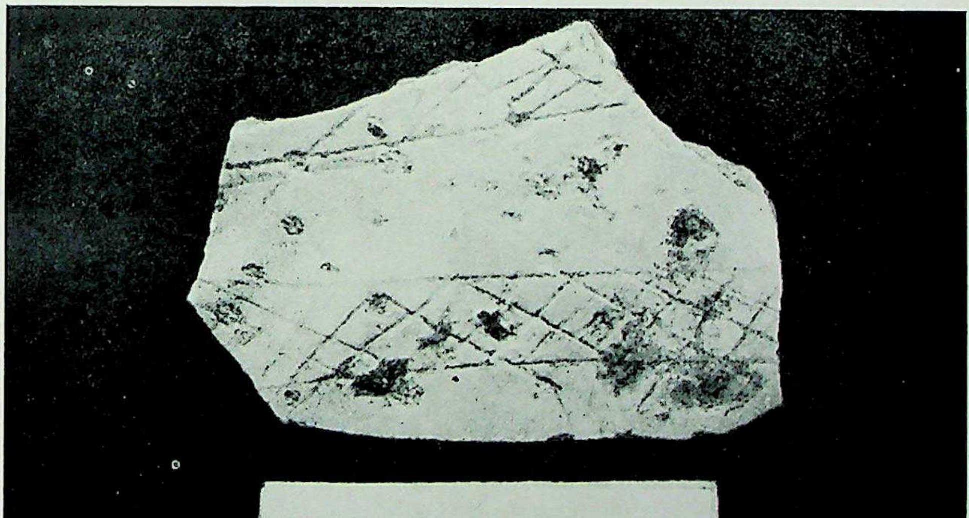


FIG. 4: Female figure in bone from Gravel III, Belan valley

FIG. 5: Incised drawing on ostrich shell from Patne excavations, Maharashtra



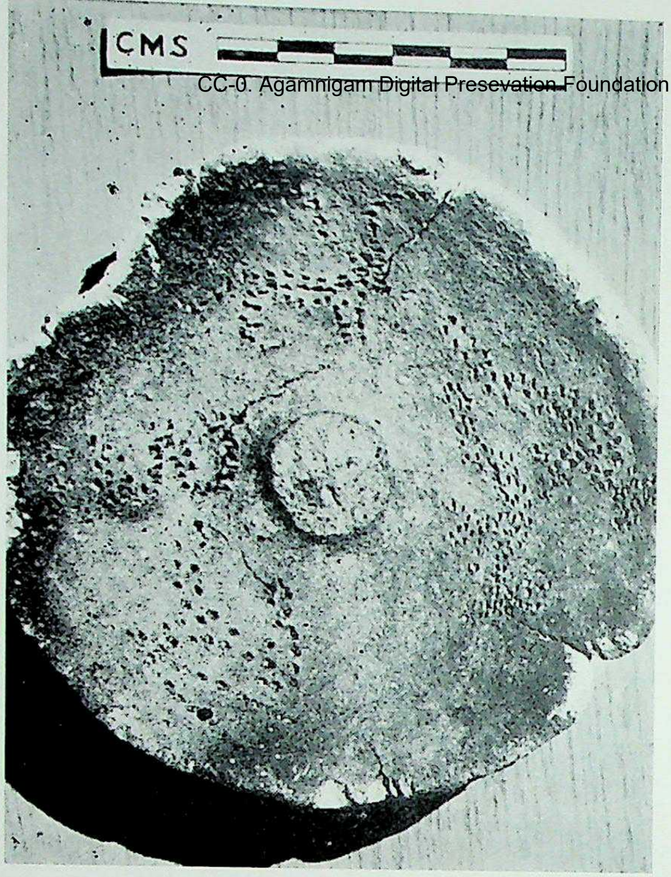
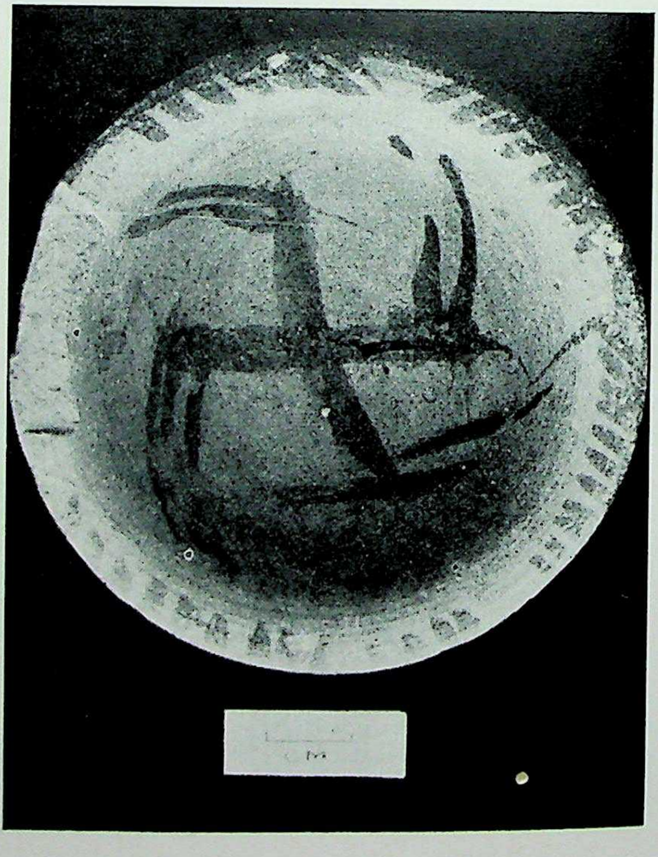


FIG. 6: Pottery lid from Tekkalkota, with pinhole decoration, c. 1800 B.C.

FIG. 7: Inside base of bowl from Inamgaon with Swastika, c. 1200 B.C.



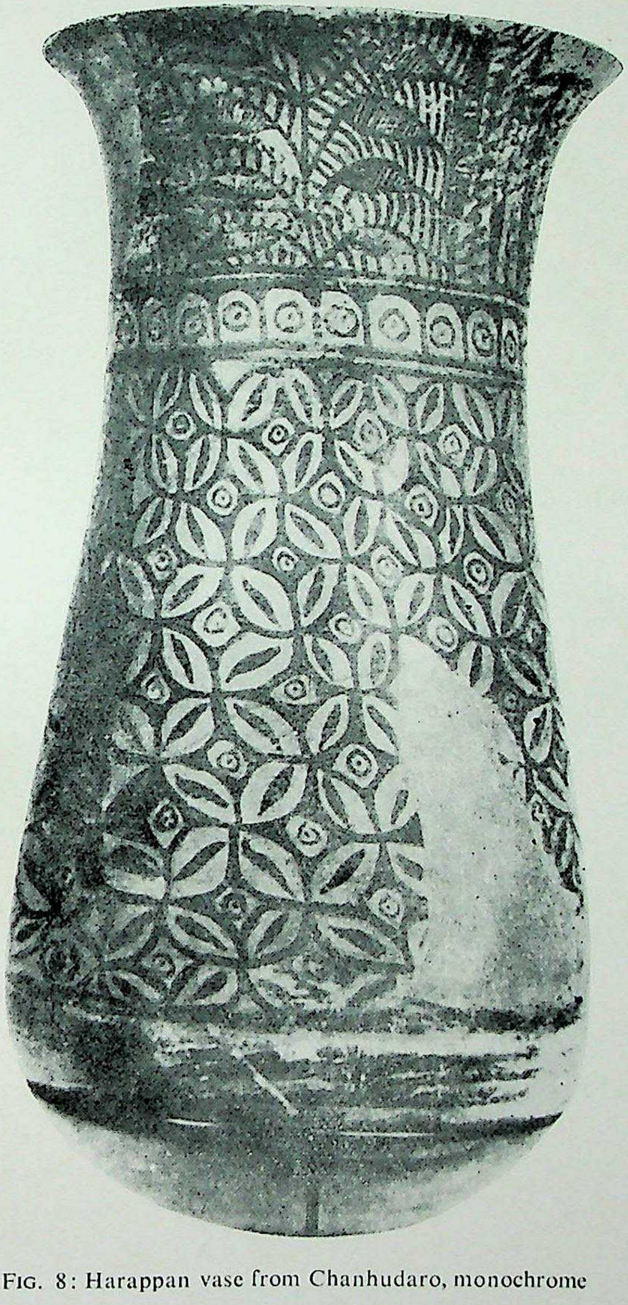


FIG. 8: Harappan vase from Chanhudaro, monochrome

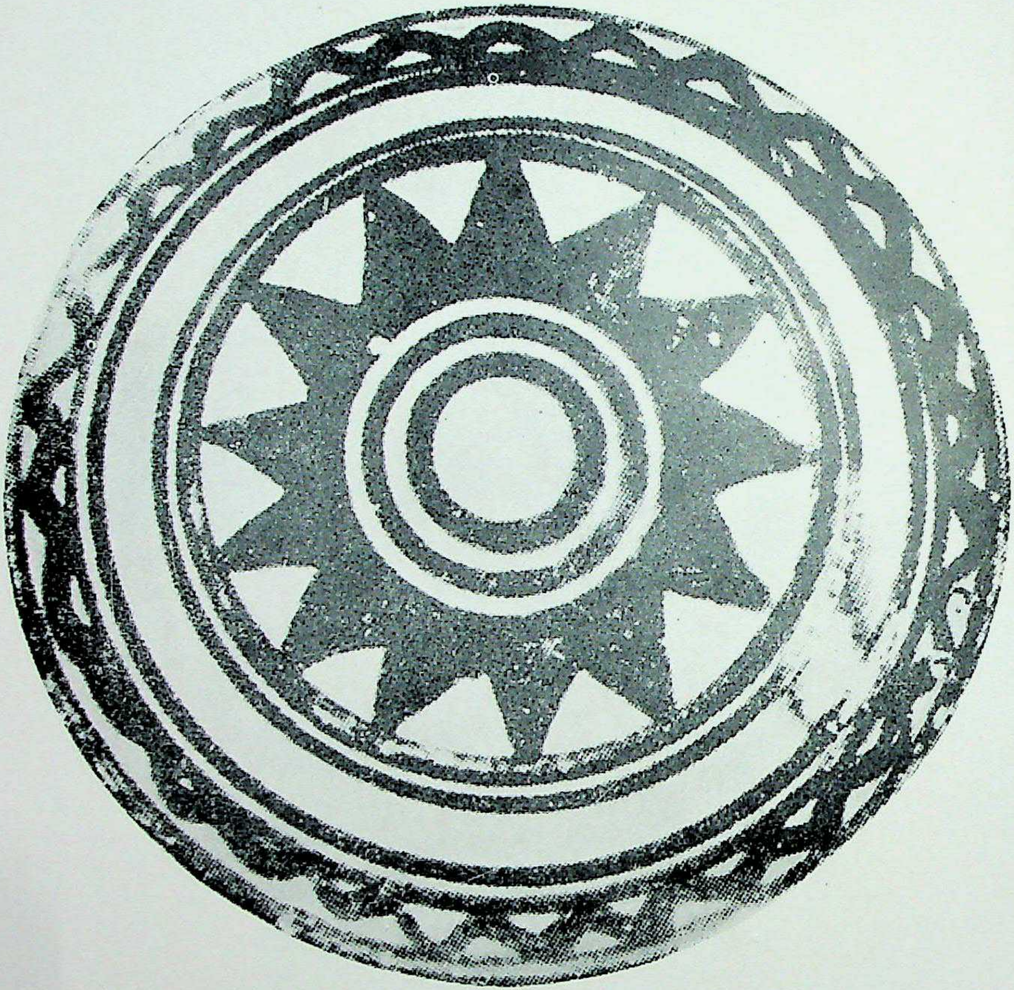


FIG. 9: Dish from Cemetery H, Harappa

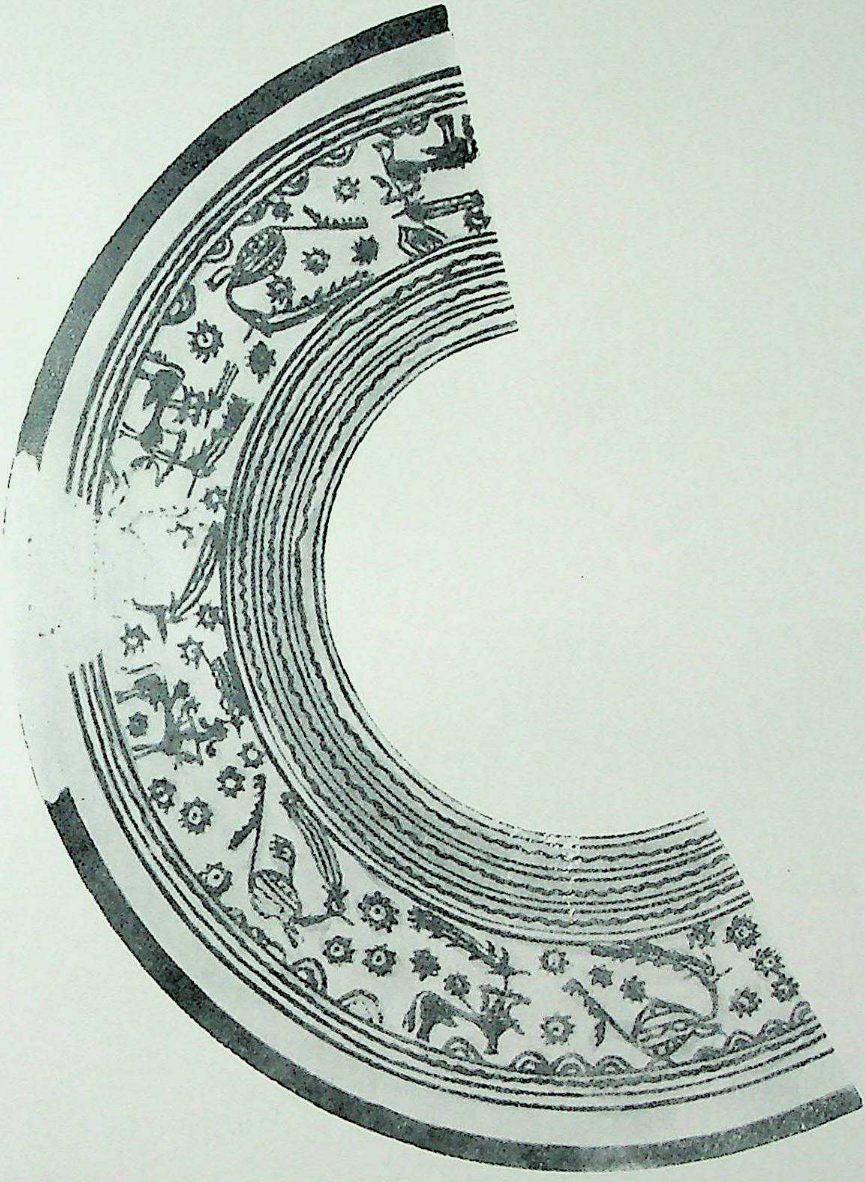


FIG. 10: Decoration on shoulder of vessel from Cemetery H, Harappa

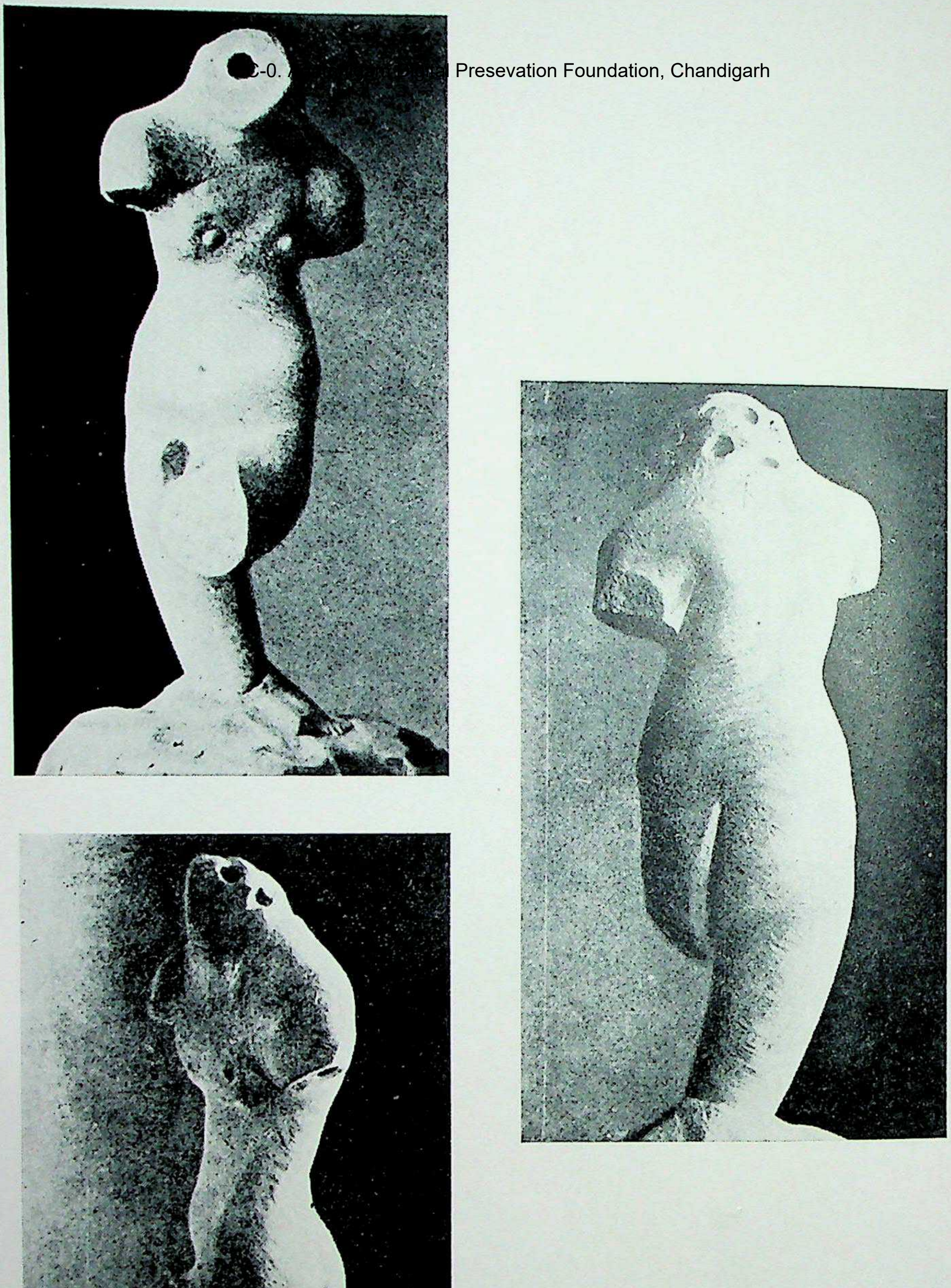


FIG. 13: Male torso in limestone from Harappa

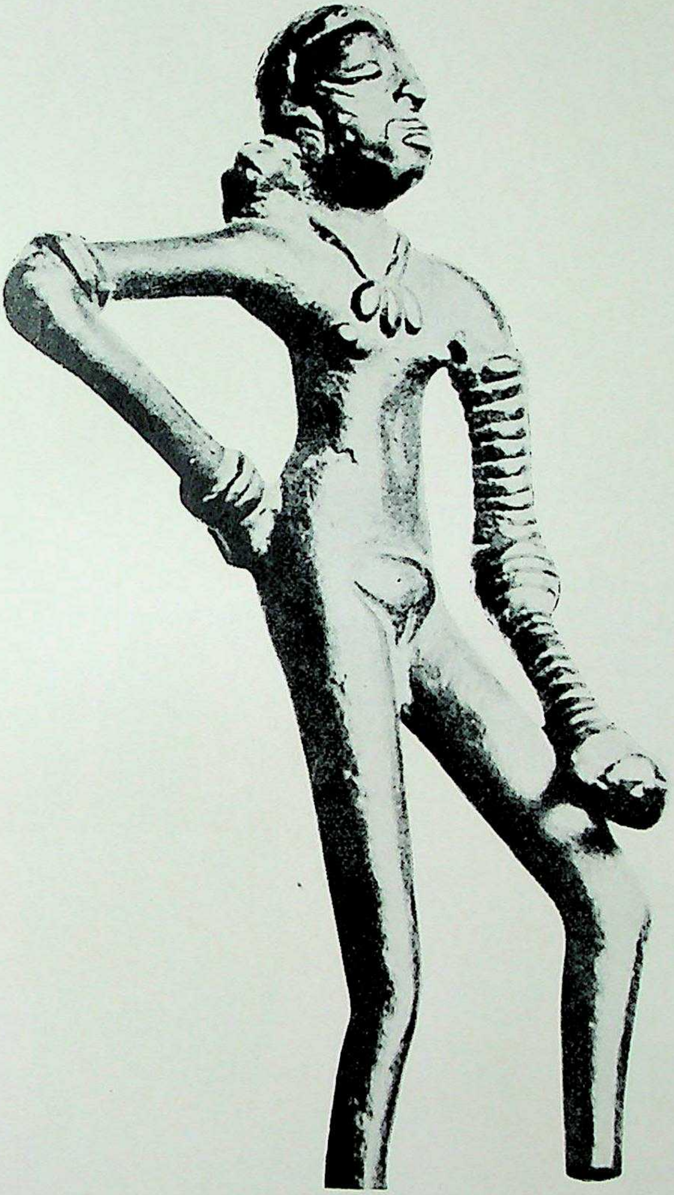


FIG. 14: Dancing girl in bronze from Mohenjodaro

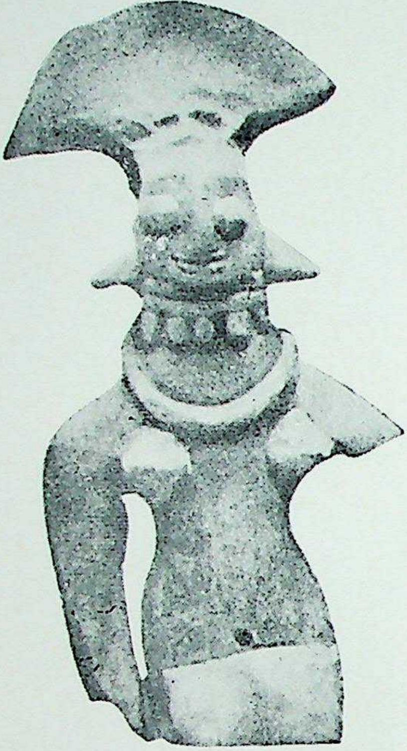


FIG. 15: Woman with pannier head-dress

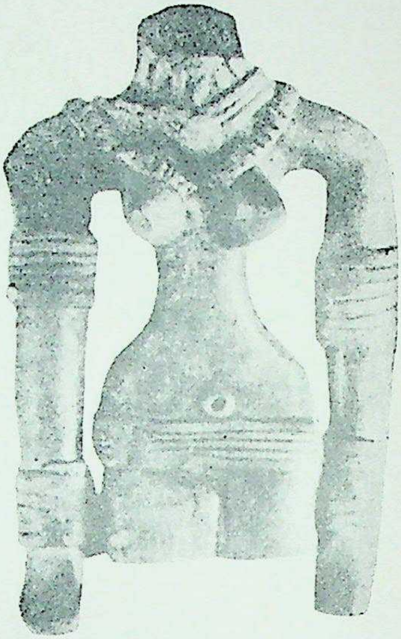


FIG. 16: Young woman's torso

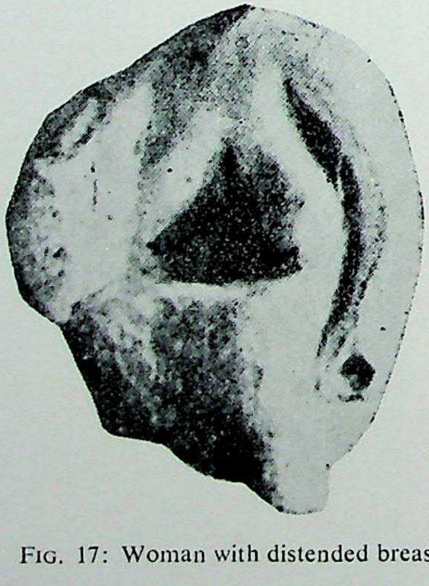


FIG. 17: Woman with distended breasts

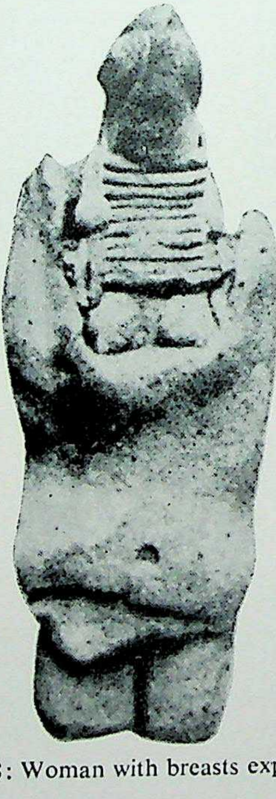


FIG. 18: Woman with breasts exposed

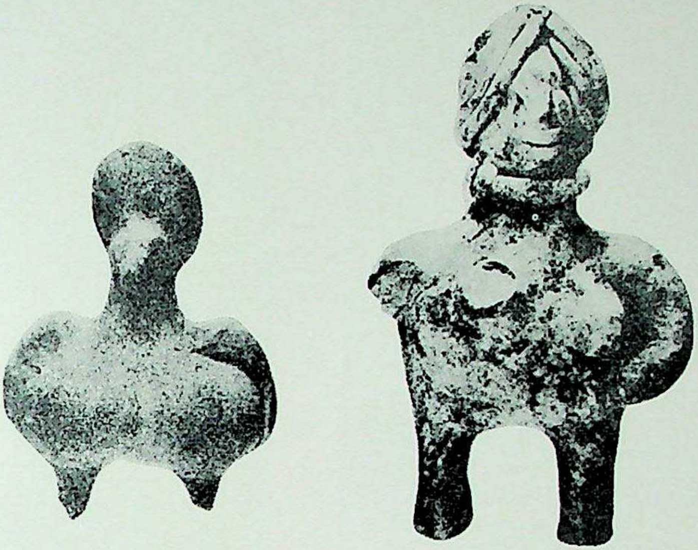


FIG. 19: Terracotta figurines of two pregnant women

FIG. 20: Terracotta figurine: kneading dough

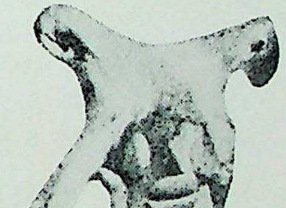


FIG. 21: Terracotta figurine: woman supporting object

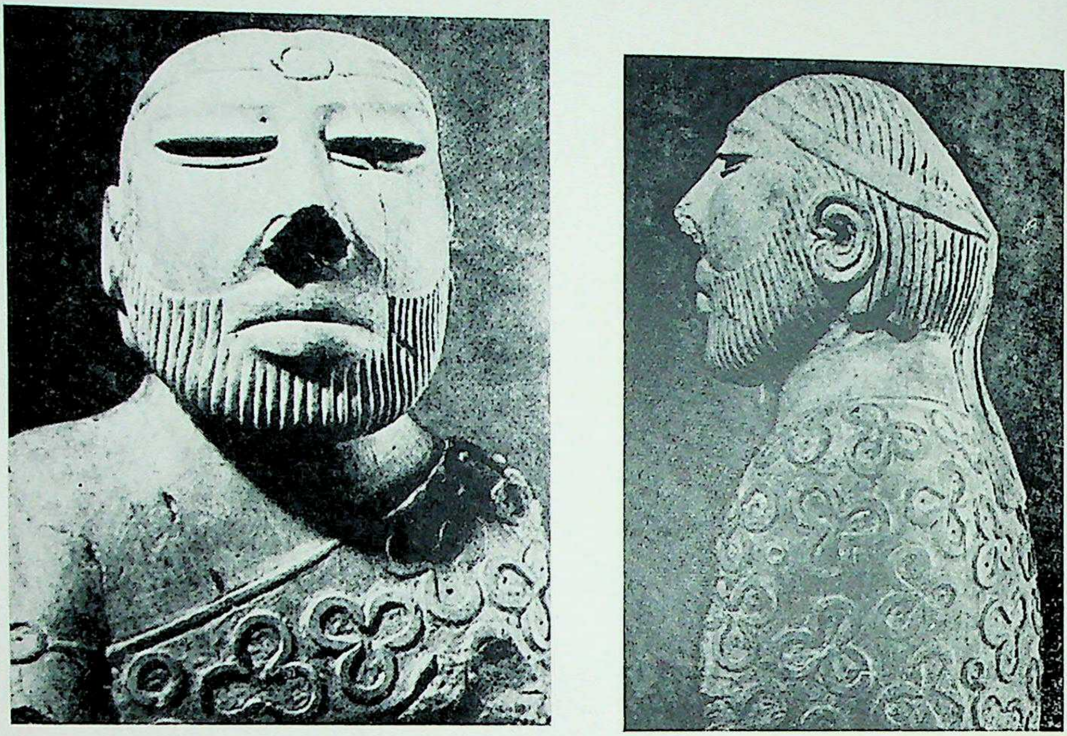
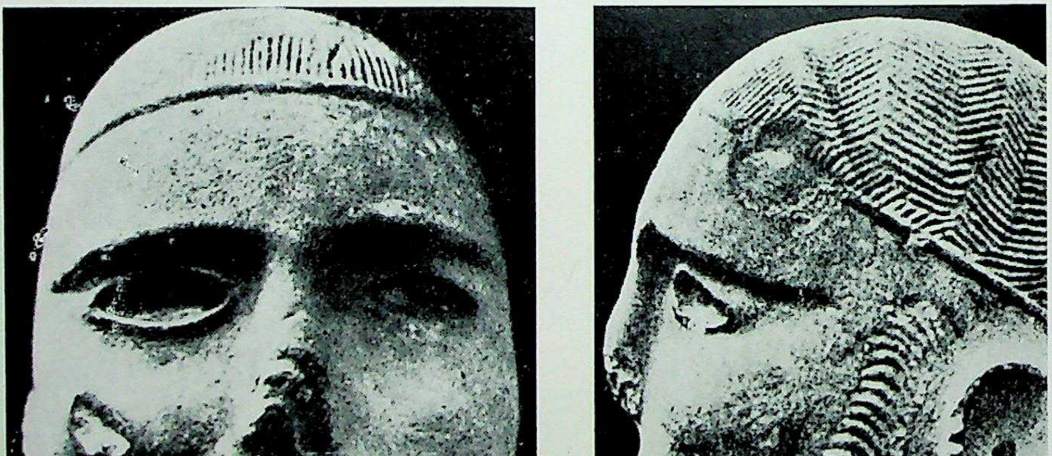


FIG. 22: Male bust of priest in steatite from Mohenjodaro

FIG. 23: Male head in yellow limestone from Mohenjodaro



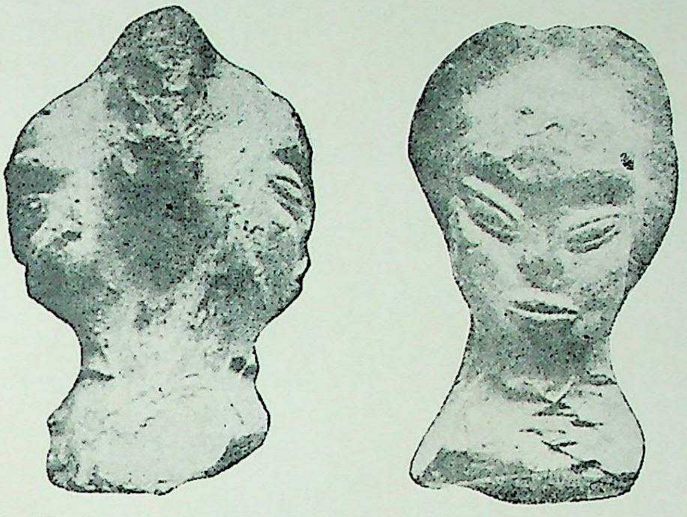


FIG. 24: Two-faced head in terracotta from Mohenjodaro

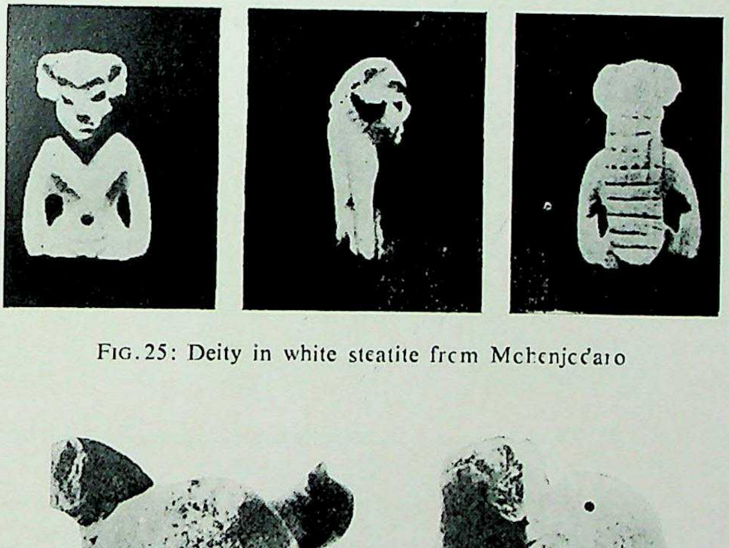


FIG. 25: Deity in white steatite from Mohenjodaro

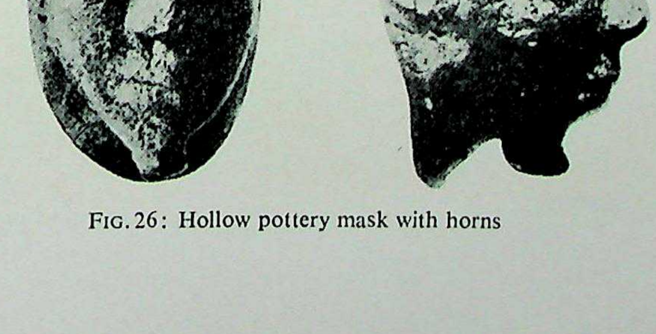


FIG. 26: Hollow pottery mask with horns

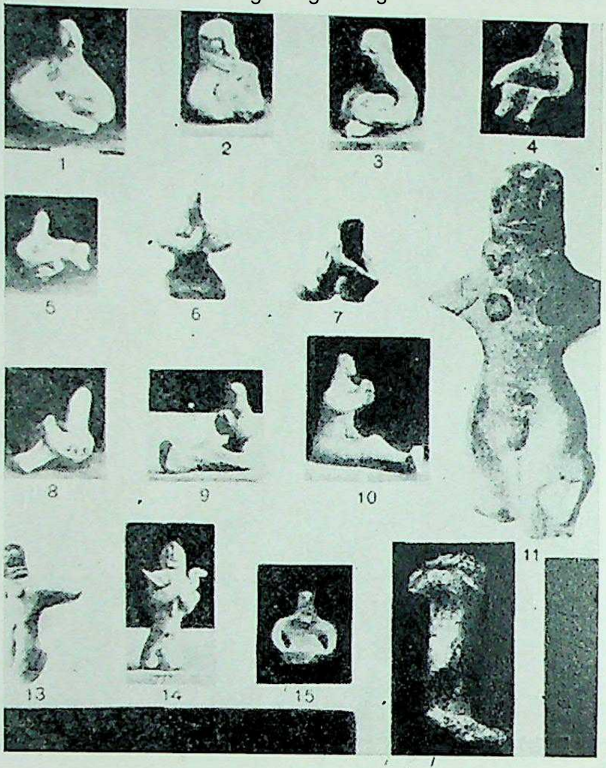

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FIG. 27: Terracotta figurine depicting different asanas

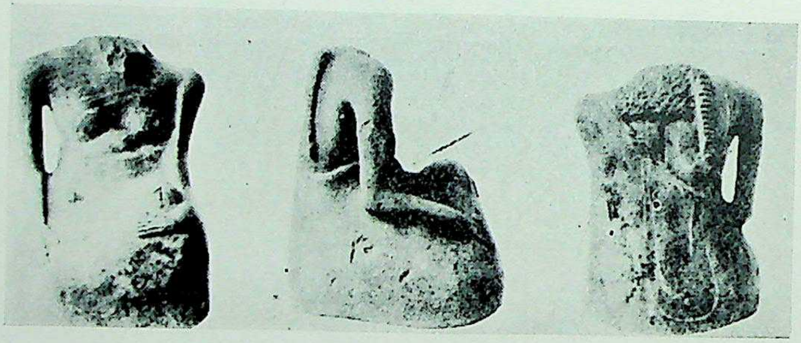

FIG. 28: Three views of a seated figurine in alabaster from Mohenjodaro

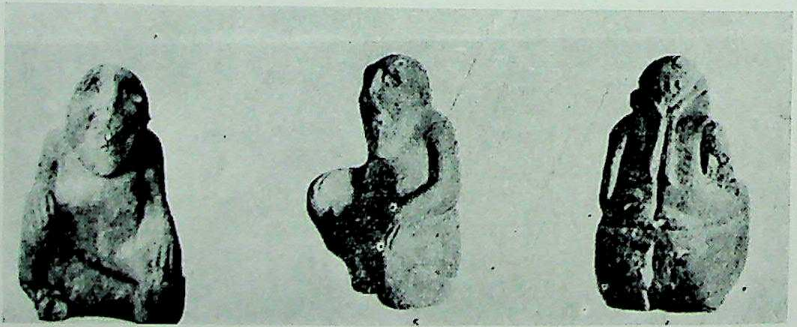

FIG. 29: Three views of a kneeling figurine in alabaster from Mohenjodaro

Now the occurrence of such faithful copies hundreds of miles away, possibly after 50 years or a century or two, raises an important question of culture contacts, of diffusion and transmission.

Presumably there should not be much of a time-gap between Mohenjodaro and the samples from Lothal-Kalibangan, at the most 200 or 300 years. Obviously, not much can be said on the strength of a single specimen. What is here suggested in an intensive study in variability both among the larger as well as smaller objects of the Indus civilization from the main sites. We should *then* see how the results compare with the respective Carbon-14 dating. Too much emphasis should not be placed on any one source of evidence.

The bull's in steatite[136] looks majestic. It is just 2.81 long, with the horns, ears, and the sexual organs fixed separately in sockets. All these or the former might have been made of a different material. The figure was originally supported on a stand. The wrinkles and hair on the head and neck, and the garland round the latter have been carefully worked with a graver. This bull is quite early in date.

This bull's head[137] seems never to have had a body. Though the modelling and finish are said to be rough, the general effect is good and powerful.

There are a few copper-bronze specimens of the bull. One of the best artistically[138] is 1.5 ins. in height, solidly cast, and well modelled, showing the peculiar expression of a bull.

Ritual Bull Heads and Masks

These were found in all the strata at Mohenjodaro. A hollow model of a bull's head has both horns and one of the ears missing. The head was made on a mould with the other details added later.[139] In the slightly concave base there is a hole 0.58 ins. diameter, which may have served to attach the head to a staff. Hence it is suggested that such bull's heads were carried in procession.

This[140] is made of pottery, 2.2 ins. in height, hollow, made in a mould. There are two small holes on each side of the head to fasten to something.

That the bull was held in high regard may also be seen from the bull heads,[141] cut in shell. These are 0.9 and 1.3 ins. high respectively, and very carefully carved with sockets for the eyes, ears and horns, which were made of some rare material. The head was probably cemented by the flat surface at the back to a body. The hair is carefully indicated by means of incised lines, and a garland is shown as worn around the neck. Vats[142] also illustrates a bull's head made from a conch shell (*sankha*). He also mentions four bull heads, of which two have twisted horns,[143] while a unique one from Cemetery H is painted in deep red.

Compared to all these categories of bull figurines, there are others which are not carefully made. These seem to be toys for children. Mackay illustrates a few from later excavations.[144] The former is well preserved with its horn having incised marks. If these represent corrugations, then the animal might be a Gaur.[145]

The second example stands on a rectangular stand, such a base being rarely found. In spite of this fact Mackay thought that because of its poor workmanship, the model may have been made by a child! Some of the bulls, particularly those whose shoulders are found perforated laterally, were probably fitted as draught cattle to toy carts, a feature seen at Chanhudaro alone.[146]

Here attention should be drawn to four *quite different* representations of bulls from Chanhudaro.[147] Their very short, sturdy bodies, high humps, with short projecting horns, brought together at the tips mark them as a differents pecies from those already discussed. No. 5 is exceptionally interesting, as its hump is partially subdivided into portions. All the four have no eyes. Since they were found together in the Great Cutting at Chanhudaro, Mackay has assigned them to the Jhukar Culture. We also thought that these spirited bulls probably were meant to represent fighting animals, and might indicate the prevalence of bull-fighting.

It may be mentioned here that bulls with high or exaggerated humps were not unknown to Harappa. Four examples of such bulls with concave back are illustrated by Vats.[148]

Buffalo

Toy figures of buffalo are scarce at Mohenjodaro[149] and there are none at all at Harappa, and Chanhudaro. Although the animal is represented on seals, and as compared with the bull its importance not much, both as a cult figure and as a piece of decoration, or as a toy, we cannot say it was none at all, for otherwise, why should any artist produce one of the finest animal figures in metal, and the only one, of a buffalo? This unique specimen is 2.85 ins. long and is regarded as of the late period. Mackay thought that it was cast in the *cire perdue* process, for there is a long oval flaw in the middle of the back which had been carefully filled in with metal.[150] In spite of this technological observation, Mackay is not quite sure. Whatever might have been the process, one cannot fail to admire how realistically the artist has shown the animal scenting possibly danger, with the lashing tail to suggest, as Mackay tells us, that the animal is thoroughly aroused and shows it.

Compared to this, the rare pottery specimen[151] is not bad, and is 4.15 ins. in length. The fact that it was found at a fairly good depth of 15 ft. is sufficient to warrant that right from the early or intermediate period, the artists at Mohenjodaro could portray a buffalo realistically. For this they chose the characteristic attitude of the animal, with the nose up, scenting the breeze. That this pose or attitude of the buffalo was deliberately chosen is apparent from the fact that in a few representations of this animal on seals[152] it is shown in a very docile attitude, as if bleating, with its head slightly raised.

Ram

Toy models of ram are more common in faience, or some vitreous paste than in pottery and steatite. These have been found at Mohenjodaro,[153] Harappa, Chanhudaro,[154] and occur possibly in other sites of this culture such as Lothal and Kalibangan. The earlier one in pottery[155] found from Mohenjodaro is comparatively crude. The one from Chanhudaro, possibly has a human face, and yet was thought to be the work of a child. The photograph is not clear, but why should a child give it a human face? On the contrary, if in future more definite examples of such human-faced rams are found, then there must be some reason and probably a cult behind it.

However, the two pottery figures found from the lower levels[156] are indeed good. In No. 8 the incurving horns, and in No. 12, the fleece are well indicated, though the face in No. 8 resembles that of a dog rather than that of a sheep or a ram.

Specimens in faience are usually in a crouching position; so also those in steatite[157] and are exceedingly well made. Since the photographs are indistinct none of these are reproduced here. Of the faience specimens No. 3 is 1.7 ins. in length, made in a mould with the features touched up later. The fleece is indicated by incised lines. The one in steatite is 1.45 ins. in length, with the fleece and horns well defined. Another in the same material found later is unfinished, and is said to have a Sumerian look.[158]

Vats describes five examples of rams from Harappa,[159] one in terracotta and four in faience. In these even the first is realistically made, whereas the latter all are in couchant positions with a hole across their body meant for suspension, to be worm possibly as amulets. Artistically these are said to be inferior to those from Mohenjodaro; but the one in terracotta is quite realistic.

Goat

This animal was rarely represented in pottery, and the one from the excavations at Harappa is interesting for the characteristic beard.[160] Whoever the artist, his observation was keen.

The one in bronze is justly claimed as an exceptional piece of work. It was found in a copper vase together with other small objects, buried under the floor of a mud-floor, and apparently a hoard.

The object is 2.18 ins. long by 2.12 ins. high including the tang.[161] It shows a couchant goat with lateral, spiral horns, tied to a post by means of a broad collar. The details carefully rendered show that this little model was made by the *cire perdue* process. It has a long, flat tang to support it. The ears were very carefully fashioned and there is a slight trace of a beard below the chin. The hollow eyes were once inlaid with some precious metal.

The exact purpose, religious or otherwise, that this tiny model served cannot be ascertained; but it remains the best preserved model in metal from Mohenjodaro.

In this context we may cite an antimony rod of copper-bronze found at Harappa.[162] While it tapers both ways from the centre, its one end of the handle is crowned by the figures of a dog and a goat. The former is biting the ear of a goat. Vats gives no details, but such exquisite bronze figures must have been produced by the above mentioned process. As far as one can make out from the photograph after cleaning, the action is extremely lively and the figures portrayed faithfully. Such a realistic duel between animals is rare in the whole range of Indian sculpture. This should have been published in an enlarged size, so that we could have judged the expression on the face of the animals. As it is, this unique tiny bronze sculpture as well as the bronze cart have been little known even to scholars.

Elephant

Though the elephant is frequently and well portrayed on seals, its appearance is rare in terracotta, faience, steatite, and copper-bronze. So far a few specimens from Mohenjodaro and Harappa and one from Chanhudaro are illustrated by Marshall,[163] Mackay,[164] Vats[165] and Mackay[166] respectively. The first one is hollow, and possibly a rattle. The second one is 2.6 ins. in height, the best preserved, and portrayed with considerable fidelity to the spine and the eyes. Those from Harappa are broken. In the late Chanhudaro specimen again, the spine as well as the sloping hind portion are carefully depicted, but the trunk is too short.

Monkey

This animal does not figure on seals, but its representation in terracotta, faience and steatite is always life-like. Mostly pictured as squatting,[167] with a hand on each knee, a unique figure from the excavations shows it with a child on its left knee[168] and with piteous eyes without inlay. In another unique example from Harappa the animal is shown climbing.

Of the first three from Mohenjodaro, No. 13 alone is clear in the photograph. It is a delightful figure, 1.5 ins. in height. The deep eye sockets were originally perhaps inlaid. The mother and child figure is in faience and 2.13 ins. in height with a flat base. Now the figure appears crudely modelled, as the glaze is worn off or not done at all. The group was entirely modelled by hand, and the fingers and toes of the mother and her young one trimmed with a knife. The fingers are indicated by incised lines, as well as the hair on the mother's head. The young monkey is looking over the left shoulder of the parent, and the mouths of both are open as if in alarm. The figure belongs to the early period. The second one is in pottery with a red slip, 1.32 ins. in height. The animal is shown squatting with hands on the knees.

In all these models, as Mackay observed long ago, there is very little difference either in technique or style. He also expressed great admiration for the artists, whom he thought were men of no mean ability.[169]

The one from Harappa[170] is in terracotta, 2.2 ins. high. It is admirably modelled and shows a monkey climbing the branch of a tree which it grips firmly with hands and feet. The end of the upraised tail is turned down. In all the specimens the common brown monkey (*Macacus rhesus*) seems to have been represented.

Squirrel

Of the several specimens[171] the one in faience here illustrated, is 1.1 ins. in height and a charming little figure. The animal is shown in its characteristic pose, seated on its haunches with its forepaws to its mouth, as if eating. Three violet coloured lines down the back represent the three dark stripes sometimes seen on this species of the animal.

At Harappa almost identical representations are said to have been found at all levels and all over the site. From this Vats[172] rightly concluded that this faience model was used as an amulet. Though the figures illustrated are said to be exceedingly well modelled, unfortunately their photographic reproduction is not clear. Likewise Harappa had also yielded toy figures of snakes, the armadillo, owl, cock, hen, and parrot.[173] Again these are not clear in the plates and are not worth reproduction.

Birds

Large number of toy birds have been found at Mohenjodaro,[174] Harappa,[175] Chanhudaro, and other sites[176] as well, indicating once again, that even in this respect there was an identity of community interests between all these farflung sites. These figurines are usually hollow inside, indicating that the core inside, being of combustible material, had been burnt. Doves are the most numerous, while there is so far a single specimen of an owl in steatite, perhaps so of the singing bird, and a few of parrots, peacocks, ducks and geese. This is not inconsiderable, taking into account the fact that we have far too little data of this type for any other period of Indian history. Of course, one of the reasons is that no historical site has been excavated on a scale like that of Mohenjodaro. Still whatever we know from the earlier excavations at Taxila, and the later ones from Kausambi, for instance, give little insight into the bird and animal life of the period, or the interest taken in them by the inhabitants.

Doves were found at Mohenjodaro in all levels—the early as well as late levels, and are well executed.[177] They are represented with open wings and tail, and mounted on a pedestal with a floored base. No. 11 is also in pottery with a cream slip, and 2.75 ins. in height. It is possibly modelled on a stick. No. 23 is from low levels, in pottery, without a slip and 3.61 ins. long. It is possibly a dove with outstretched wings.[178]

A peacock was found from a deep level at Mohenjodaro,[179] this piece of pottery being 3.79 ins. in length. Though the head is broken, from the graceful curve of the neck and body, the long broad tail and stout legs, it can be identified as a peacock. Another specimen is also from Harappa, p. 302, Pl. LXXVIII, 14 with extended plumes executed when the peacock is "dancing" or exhibiting his charm to the female.

A duck in pottery is 1.8 ins. long, with a broad flat bill, being either a duck or a spoonbill.

Though made of fired clay, a goose had traces of a thick white slip which was probably once coloured.[180] It is carefully made.

A singing-bird is now in drab coloured fired clay, but it is a carefully made model of 1.62 ins. in height. The care with which it is made suggests, as Mackay noted, that this bird was kept in a cage.[181]

A fighting cock 1.65 ins. high,[182] is very carefully made in a mould, and trimmed afterwards. We note particularly the aggressive look. Of the three holes in the base, two were meant for the legs, and the third as support for a pedestal.

Vats illustrates a fine parrot in faience from Harappa.[183] It is 6 ins. long, and has a horizontal hole at the back for separate insertion of the lower feathers which are missing. For the feet also there is a hole on the underside, and a hole across the head for indicating the eyes. At the wings there are two impressions, seemingly for inlay, as they show traces of red colour when found.

A long eared or horned owl,[184] 1.3 ins. in length, is made in steatite.

It has sockets at the eyes and ears for inlay and two holes on the underside for separate insertion of the feet. The wings are indicated by crosswise incisions.

Snake

Toy models of snakes are reported in faience alone, and that too from Harappa only,[185] though they are depicted on a terracotta sealing from Mohenjodaro.[186] Vats describes and illustrates these two specimens from Harappa.[187] The first is a snake head only 0.8 ins. in height. It is a well-modelled head in white colour, broken at the lower part. The ears which are so peculiar in snakes are faithfully rendered and there is a socket hole in the mouth for the insertion of the fangs. The piece was highly fired, as its surface has an unusual smoothness, and a gloss resembling porcelain.

The second snake is 1.35 ins. in length, with the head missing; but this was separately added, as there are two deep holes for inserting the head. On the underside, the chain-like ribs are carefully indicated.

We cannot but admire the sense of appropriatness of the Harappan artists. For a snake-like creature can only be depicted in its true colour in faience, or glass, but not in simple terracotta.

Vats also illustrates the forepart of a mongoose in steatite. It is 6.5 ins. in length.[188]

A fine representation of the armadillo occurs in terracotta at Harappa.[189] Its head, eyes, long tail, and bony, granulated skin are faithfully depicted. It was once coloured with a white slip.

The tortoise was also faithfully represented in terracotta. The one from Harappa is 2.2 ins. in length.[190] Its upper shell is indicated by incised lines on either side of the spinal ridge.

The forepart of a crocodile with its young is shown as if basking on the sun on a river bank. It is 3.2 ins. long.[191] Only those who have witnessed this scene on rivers like the Narmada, can appreciate the keen observation of the Harappan artist, and the fidelity with which he has translated this scene into a tiny terracotta model.

5 Seals and Sealings

As Sir John Marshall[192] remarked over 40 years ago, "such art, worthy of the name, as has survived at Mohenjodaro or Harappa, is chiefly to be found on engraved seals, amulets, and other small objects." Though introduced only in the execution of such small objects, this was no ordinary art. The artist has tempered realism with a breadth of treatment and restraint, and thus brought out the dignity of the animal, which only the eye of a true artist could have done. Marshall was a great admirer of Greek art, and only a few years before in 1923 he had said that the Indian art could not compare well with that of Greece or Rome.[193] Now he had to confess that the Indian engraver could anticipate the Greek in the delineation of animal forms. We notice in the few human figures in the round, as well as in the numerous seals and sealings, "monumental treatment," as well as the "perfection of anatomical details."[194]

Distribution and Significance of tbe Seals

Now these seals and sealings, mostly in steatite, but occasionally in copper-bronze, terracotta, and once in stone, have been found in large numbers both at Mohenjodaro and Harappa. Their occurence or distribution is not confined to one place or area. As all the three authors, Marshall,[195] Mackay[196] and Vats[197] report, they are found all over the excavated site: in the houses of the poor as well as rich, and at all levels. Of course, these are very general statements. In the absence of more contextual data we cannot be sure that the so-called house of the "poor," indeed belonged to a poor resident.

Of this much we can be certain: that all the classes or strata of society had the occasion to use these beautifully engraved seals and sealings, either for religious or for trade purposes, or both. Either due to convention or tradition, or a deliberate desire, they wanted the artist to produce faithful representations of the animals, such as the unicorn (one horned bull), the short-horned bull, the brahmani bull, the bison, buffalo, elephant, tiger, crocodile and antelope. Whatever be the exact reason behind the production of these seals and sealings, both the artists as well as the users of these seals were aware of the need of an artistic piece—a piece that was different from so many other mundane things.

It is this widespread awareness of what was true art that is important, and that indeed compensates for the loss of decoration on houses which as Piggott, Marshall, Mackay remarked, represent miles of monotony.[198] That also compensates for the absence of decoration on weapons, implements and utensils of everyday life, which for the most part are conspicuously plain. Even the painted pottery is dull comparatively speaking, so that the painting of pottery in the Indus Valley is not regarded an art, but just a craft.

When we examine the large number of these seals and sealings, we notice that among these also, all are not equally good. There are some where the animal, its pose or its anatomical details are much more faithfully rendered than in others. This is true both at Mohenjodaro and Harappa, and may be seen in the comparatively small number of seals from Lothal, Kalibangan and Surkotada. This variation points to one thing; among the artist-engravers or their guilds, there were some (few) who were more skilful than others, and hence produced a more faithful rendering of the animal form, and its characteristic pose.

Unicorn or Urus Bull

Among the animals so faithfully and vigorously portrayed on seals is the "unicorn" or the "one horned" animal. Whether this was a mythical, fabulous animal or a living one, as others like the tiger, elephant, bull, gharial were, has been discussed at some length by Marshall.[199] He thought that only living animals were represented on the seals, because these can be easily distinguished from others. Mackay noted that it occurred no less than 388 times on seals from Mohenjodaro. Thus it seems to have been the most favourite animal either with the merchants, priests or the people in Harappa.[200] This would be possibly also true at Lothal and Kalibangan, but is a point worth investigating. As all these scholars have noted, the animal has been, for some reasons intentionally, shown with one horn only, for there are a few seals and two terracotta sealings from Harappa where on the contrary the animal has been shown with two short horns. At Mohenjodaro in the two instances cited by Mackay, the two horns seem to be a different type. However, it is now certain that a bull type is depicted on the seals, and Mackay[201] prefers to call it a "urus bull."

It is not easy to choose the best from these 700 odd specimens. In all the examples the side view of the animal is shown, and in doing so, the engraver has taken great care in truthfully showing the powerful hind muscles as well as those of the not-too-long legs. There was no scope of doing anything of the kind with the fairly long neck, and even the belly. Almost invariably there is some object in front of this animal which has also been carefully drawn, and is usually identified as an incense burner.

It would have been interesting if a proper distribution of these unicorn or urus bull-bearing seals could be worked out. For this would not only prove the wide distribution, but the fact that almost all citizens in these two cities were well acquainted with this finely made artistic piece.

Short-horned Bull

The next in popularity, according to the number of seals found, was the short-horned bull. This is normally portrayed in a belligerent mood with its head lowered, as if about to charge, with a manger or food vessel placed before the animal.

This manner of representation is regarded as peculiarly Indian,[202] and said to be quite different from that seen in Crete and Egypt. One reason why this bull is so frequently portrayed on seals is said to be that the bulls in combat were a familiar scene in the Indus cities. This does not seem to be plausible. Some deeper reason must be there, as there must be one also for depicting the one-horned urus bull.

Of the several specimens, the one reproduced here is from Mohenjodaro. In the first, two bulls are shown in combat.[203] A terracotta copy of this seal was found in the upper levels at Mohenjodaro. The instances where the bull appears singly, No. 689 shows a spirited bull. Likewise are Nos. 123, 129, 290, all from the upper levels. These from lower levels: Nos. 380, 385, 390, 399, 410, 423, and 581 have a similar spirited representation.

Of the two from Chanhudaro No. 13, in the larger one, the bull's front is bent, while in the other the front leg is taken forward. Thus the bull is not only in a spirited mood, but is shown in action, unlike many others.

It would be interesting to know if some variations are to be found at Lothal and Kalibangan.

Brahmani Bull

The bull called by this peculiar name is indeed the more characteristic of the animals engraved on seals from Harappan sites.

Comparatively the number of these seals is small, not more than 25 at Mohenjodaro. Though humped bull has occasionally been found in relief on vases and other objects, still it is in the Indus Civilization alone that bulls with such horns, hump and develop are portrayed, and that so realistically on seals or other objects. At present such bulls are a normal scene in Kutch and Saurashtra, and probably in Sind and the Punjab as well.

Among the 25 or so seals found at Mohenjodaro, so far the best representation was said to be on seal No. X 337, pictured as well as embossed on the covers of the volumes of the *Mohenjodaro and the Indus Civilization*.[204] This has been reproduced here. Later Mackay found another, seal No. XCICIC which was thought to be of even better workmanship than the magnificent animal portrayed on the earlier seal."[205] In the latter seal, one sees a clear demarcation of the muscles and fleshy parts of the bull, just above the front leg. Anyway these differences in portrayal once again point to the existence of a guild of engravers of seals and such artistic works. And anyone who beholds such faithful, life-like portrayal can not doubt about the love of the artist in the daily life of the Indus people. It is but unfortunate that whatever other traces of such artistic expression were there on their well-built houses have disappeared.

It may be significant that seals bearing this fine animal have not so far been found at Chanhudaro, whereas those with the unicorn, tiger, animal and even the fabulous animals have been found. If this is also true of Lothal and Kalibangan, our impression will be strengthened.

The Elephant

Seals bearing an elephant would come next in number, so far only

17 at Mohenjodaro, 6 at Harappa and 1 at Chanhudaro. In all these cases, only the Indian type is represented. But as Mackay has perhaps rightly noted,[206] we might be able to distinguish between an ordinary elephant of an inferior breed and a better one—just by the way how the back of the elephant, and the length of the legs has been shown. The one depicted on seal 648 with a sloping back, long legs, less square back, and not so stocky would be regarded as a poorer type," and known as Meergha. While the better type—known as the Komooria Dhundi—has a flat back, thick stout legs and square head.

In the Mohenjodaro collection, five specimens—No. 127, 171, 245, 512, and 573, enough attention was paid to the rigorous folds of the trunk. In No. 245, the forelegs are very carefully cut and do not appear wooden, whereas in four others, as in the one from Chanhudaro, the bristles along the outline of the body and head are beautifully shown. Here only two—No. 127 from Mohenjodaro, and the one from Chanhudaro are reproduced. That the Indian elephant was admired even in Mesopotamia may be seen from a fine representation on a cylinder seal from Tell Asmar.[207]

The Tiger

The tiger appears on 11 seals from Mohenjodaro,[208] twice at Harappa, and so at Chanhudaro. When it is realized that this animal is not of ordinary occurrence, in Indian sculpture at any period in any form, its depiction in the seals of the Harappan culture, and that too very faithfully, in a very natural mode of walking, as in seal No. 283, does evoke admiration for the Indus seals engraver. A very realistic representation, though with the hind portion lost, is to be found in Seal No. 259.[209]

Another seal[210] depicts a unique scene; a figure with the body of a tiger, and in place of the head, we have an upright human figure, with two arms (?) on the right, and left arms bent, with an upraised palm, and wavy horns on the head. Evidently, this is a deity, call it "man-tiger" or "tiger-man."

On another seal No. 360, a tiger-like animal is shown with two horns.[211] In seal No. 518,[212] having 7 or 8 pictographs, the tiger with its elaborate trappings looks like a toy, while in seal No. 522,[213] a tiger shown looking up and back towards a person seated on a tree certainly depicts a story.

The Buffalo

The buffalo is engraved on 8 seals, of which that on seal No. 510 from Mohenjodaro (also C,) have been chosen. For besides the faithful depiction of the animal's muscle, a fine forceful action has been shown.[214]

The Rhinoceros

Seven seals from Mohenjodaro depict the rhinoceros, and two at Harappa. Of these[215] that on seal No. 651 appears very decorative and the mouth indeed two small, while the one from Harappa seal No. 253, the large body is well shown.[216]

The Gharial or Fish-eating Crocodile

Rare at Mohenjodaro, these are found pictured on seals No. 45, 133 and 488 and twice on sealings in Pl. CI, 2,.[217] Of these, the representation on seal No. 133 is life-like, and hence here reproduced.[218]

The Antelope

This is again extrememly rare, at Mohenjodaro and elsewhere. That on seal No. 3, though identified as Chinkara (*Gazella Bennelli*) by Mackay, seems to me a bull-like animal, though its horns stand almost straight and erect. However, the finest is on a marble-like stone.[219] Both the stone and the representations are foreign to Mohenjodaro, and hence the piece is really an import from Elam or some such site in Mesopotamia, as rightly guessed by Mackay.

Likewise, the antelope or wild goat on seal No. 554,[220] again seems a representation of a familiar scene on seals and painted pottery from the same region viz. the animal wild goat or antelope, stopping when running from danger, and looking behind without changing its position of the legs or body. Anyway, whether Indian (Sindhi) or Mesopotamian "it bespeaks of close observation of nature." In this particular case, the bold lines indicating bristles on the neck and on the body, reminded us of a similar treatment on that of the tiger, rhinoceros etc.

These representations on seals, though comparatively, few give us an idea that for some reason it was important, nay necessary to depict accurately and artistically the signs and pictographs as well as the animals. It has been sometimes said that the animals seem to have had no relation with the pictographs engraved on the seal or *vice-versa*. Our study has shown just the reverse.

Whatever be the final verdict when these seals are satisfactorily read, there is no doubt that the Indus seal cutter has left behind a unique legacy of artistic sense and development in that civilization. But for this, the entire civilization would have been dubbed as materialistic, as "miles and miles of monotony."

Before taking leave of the Indus civilization, it is necessary to mention that at this time the people used a large variety of ornaments made of gold, shell, pottery and faience, as well as weights and measures of chert, agate, and shell respectively. Of these, the varying series of weights most carefully made with all sides beautifully polished, have never been found later. This sense of precision, accuracy and refinement was lost for ever in our social and economic life. This is also true of the art of manufacturing various articles in faience. The only thing which an archaeologist occasionally finds is a few faience beads, from the later survivals. The art of making faience objects was lost with the Indus Civilization. The only thing that did survive was the art of making beads in hard, intractable stone.

Conclusions on the Indus Civilization

In order to know whether the Harappans were materialistic, having little regard for the finer things of life and for art, we have had to resuscitate the details of figurines and toys after over 40 year, from the accounts on Harappa, Mohenjodaro and Chanhudaro. This study has keen very refreshing, even for the author. It has shown that counter to the opinions or the impressions of Mackay, Marshall and Vats, many of the crude-looking figurines, male, female, as well as of birds and animals, could never have been made by children. In the first place, such views were expressed without realizing their implication. It would mean that the children all over the excavated area at Mohenjodaro and Harappa and even at Chanhudaro, not only made such models or toy figurines, but baked them with the help of their parents! Or it would imply that the children of the potter's house were not only allowed or encouraged to make such figurines, but that these were baked and sold to citizens.

The more rational explanation seems to be that model figurines were made for several purposes: as toys for children, as ornaments to wear around the neck and arms, and as decorative figures and pieces of art.

While the specimens in the first category are crude, betraying ignorance of human or animal anatomy, those in categories (b) and (c) are to be regarded as real piece of art. Not only do these show keen observation on the part of the artist, but a faithful rendering of their observations is translated into clay, stone and faience.

Again, the artists' view of life was not confined to a few animals. On the contrary, both at Mohenjodaro and Harappa, the entire animal world is represented. In each case, the artist has exemplified the most typical feature or pose of the animal—of the bull, dog, squirrel, snake and tortoise. Such an all-embracing view of life is rarely to be witnessed in any period of later history, mainly because no sites of these periods have been excavated on such a scale as at Mohanjodaro and Harappa.

By plotting the finds at these sites we might be able to determine the extent to which this love of minor arts was prevalent in the twin capitals. Yet we still cannot say what social or economic groups of the people patronized it. The excavations were not advanced enough, nor had they even considered these questions as they were primarily interested in discovering and recording the whereabouts mechanically. However, this might now be attempted while studying the antiquities from Kalibangan. Furthermore, the artistic objects in categories (b) and (c), as well as the few statuettes in sandstone and limestone from Harappa, the bronze doggers, the unique figures of a bull, goat and buffalo and the magnificent series of seals are sufficient to challenge the statements of Mackay and Piggott and others. From the lack of any architectural decoration the excavated houses at Harappa and Mohenjodaro, these archaeologists had then declared the Indus people as materialistic, with their cities exhibiting miles and miles of dull, monotonous houses—of brick and mortar.

Though we have as yet no evidence to controvert the latter premise, enough remains to say that true art played a prominent and vital part in the life of the Harappans.

Even some of the daily activities of the housewife, such as kneading dough, carrying loaves in a basket, feeding a baby, dressing her hair, have not escaped the artist's attention.

This love of art is also attested by the perfection with which various stone weights have been made and polished, or the care with which the etched carnelian beads were made in all the Harappan sites. The various ornaments again testify to the calibre which the art of the goldsmith had reached, at Harappa, Mohenjodaro, and Lothal.

Again, the two small statuettes discovered by Vats at Harappa, about which Marshall expressed the greatest admiration, though with some doubt on their authenticity, can now be categorically declared as Harappan. Enough technological evidence has survived to say that all these belong to one period. This evidence is found in the method or technique by which the Harappan artist fashioned the various extremeties of the body. As in the two Harappan statuettes, sockets were provided in the shoulder and the neck for fixing the arms and the head. So also in such small objects as the faience snake, and the cock, holes have been provided for inserting the legs, or the fangs in the mouth of the snake. This peculiar device is not seen during the historic period. Thus we can *now* be sure that the two statuettes positively belong to the Harappan period. Indeed Marshall's observation that the technique was specially suited to small objects and statuettes, rather than to larger images as those of Mohenjodaro, which offer much less risk of breakage, has been proved correct. The Harappans had taken particular care in manufacturing small art objects, with the extremeties of the body such as the head, tail, legs, hands, and tongue prepared separately, so that they do not break.

In the minor arts as well as with major figurines, in the statuettes of men, women, animals and birds, the Harappan artist had truly anticipated the Greek artist by at least 2000 years. He took delight in delineating truthfully the anatomical details, in human as well as animals. He was interested in life around him, in men, women and animals and of other activities important or insignificant. Hence we see life-like representations of the bull and the squirrel, manifold methods of dressing the hair in men and women, as well as the details of the ornaments worn by them.

However, he or his colleagues also produced hieretic art, which was modelled after a religious set of canons. At times this appears crude, at others definitely repugnant; but this is because it is taken out of context of its specific purpose.

6 Post-Harappan Discoveries in Pottery

WHILE excavating Chanhudaro Mackay had found traces of two other cultures. These have been called the Jhukar and Jhangar cultures respectively. Both are considerably later than the Harappan.

Jhukar and Jhangar Cultures

No inscribed seals of these periods were found; but small, round or square objects, with their edges milled and a hole pierced through their periphery, definitely indicate that these were worn either around the neck or wrist, and hence were amulets.

These are of three types, made in pottery, faience, and hard stone. It is the last two categories which deserve our attention. As Mackay had to admit,[221] these have been made so skilfully that only a trained artist or craftsman after spending considerable trouble and time, and employing advanced techniques, could have manufactured them. Hence these few amulets are included in this survey of prehistoric art.

The Jhukar amulets, as far as the shape and decoration on them are concerned, may be classified into round,[222] square[223] and oblong,[224] shapes. The decoration is of three types:

a. *i.* geometric, with radial lines
  ii. geometric, with concentric half-circles meeting in the centre (Pl. XLIX, 2)
b. human forms (Pl. L,3)
c. animal forms (Pl. L, 10-11, Pl. L1, 1-1a, 15a.)

d. perforated holes (Pl. XLIX, 7)

Some of the amulets bearing radial lines might be solar symbols, and some of them (Pl. L, 9), as Mackay specifically notes, must have required great skill. The rare human form on amulet number 3a seems to be a deity, with the reverse having a cross. The two amulets, particularly the one showing an antelope walking and the other looking back, is indeed well done. No less artistic is the interlaced or the infinite coil pattern design on Pl. L, 4.

Not only these are examples of superb craftsmanship, but they show as Mackay had suspected, influences from Iraq or Mesopotamia. Probably all these were imports.

Post-Harappan Art at Ahar

Following after the Harappan and the Cemetery-H cultures in the Panjab, there were a number of regional and sub-regional cultures. The exitence of these has been revealed by excavations and explorations in Uttar Pradesh, Bihar, West Bengal, Rajasthan, Saurashtra, Madhya Pradesh and Maharashtra, Andhra and Karnatak. From amongst these states, some reliable and worthwhile data is available from the excavations at Rangpur and Somnath in Saurashtra, Ahar in S.E. Rajasthan, Navdatoli in Madhya Pradesh, Prakash, Nevasa, and Inamgaon in Maharashtra and Tekkalkota in Karnatak. At all these places, the only thing that might deserve some consideration is pottery. That too, is not everywhere. Thus at Ahar in Southeast Rajputana, among the masses of several fabrics of pottery, the only specimens that might be regarded as pieces of art are some bowls and dishes. These have a black top with fine painted designs in white, while the rest of the surface is red. When I saw these pots thirteen years ago, I was reminded of the fine *bandhani* (tie-and-dye work) on the saris of Bhil women. Equally noteworthy are the highly polished *lotas* with a brown or sepia surface.

Equally remarkable is the applique, cut and incised decoration, on fine red slloped pottery or coarse pottery.

While both these features help in distinguishing the Ahar culture from the rest, these by themselves might not be of sufficient value as true art. Hence a detailed discussion of this early Ahar or Southeastern Rajasthani art is omitted here. Interested readers should refer to our report on the *Excavations at Ahar*.

Pottery of Navdatoli

Geographically and chronologically the next to draw our attention should be Madhya Pradesh. Here a rich painted pottery culture was revealed at Navdatoli. Since full and detailed reports on these excavations have been published, it would suffice to refer here to some salient features of this art.

In the art-history of India, the painted pottery of Navdatoli would occupy a prominent place. In fact one might be able to give up this restricted title, and speak of the art of Malwa, or western Madhya Pradesh, if in future large excavations are carried out in different parts of this region. From what we know of the general distribution map, based upon imperfect and sporadic discoveries, the painted pottery of the Navdatoli type is also found in the north, at Eran on the Bina. It occurs not only at Kayatha, a site near Ujjain, but at Indore, and south of Navdatoli at Prakash on the Tapi. Thus there is little doubt that at one time, between 1600 B.C. and 1300 B.C. or a little later, the inhabitants of this vast region used in their daily life a beautiful pottery with sophisticated shapes. Since this has been discussed in detail and fully illustrated in our report on

Navdatoli, I would not dwell here upon these aspects as on art-form alone.

An interesting feature is that all this art was bestowed upon the most utilitarian objects of great fragility, such as pottery. That too, not on a few select pots and pans, but as our intensive field observation backed by laboratory studies reveal, on 90% of the entire collection. Barring such large vessels as flat-based dishes or plates for preparing dough, and large storage jars which were probably partly handmade, all the rest were painted. For purposes of this lecture I have selected a few examples. Fortunately, our horizontal excavations have given us whole, intact vessels; or one has to form an idea of the vessel and the design thereon with the help of measured drawings.

Among the scores of *lotas*, I have always admired the one here illustrated. By comparing this with four other lotas shown in this drawing, it will be observed that the potter has deliberately given a high concave profile to the vessel which has reduced the size of the lower globular part. Thus size for size, this *lota* would hold less liquid. Hence I would call this *lota*, more an artistic creation and not an utilitarian one. Exhibited in a museum case, or kept on a table either in the centre or in a corner of a room, it creates a very pleasant feeling by its profile. The effect is heightened by just depicting one animal on its very narrow neck.

Another *lota* (T. 102B) with the design of a sunrise on its neck, is a little less perfect. Here the effect is spoiled by depicting another design on the neck. Likewise, can we deny the fact that the potter-artist was not conscious when he made the footed cups or goblets, christened as champaigne cups by Sir Mortimer Wheeler? There is a slight variation in the concave profile in types A, B, C. Not only this is deliberate, but it serves to create an artistic effect.

Among the footed cups, there is a still more graceful form. We did not find a complete specimen, but the bowl and the stem were found separately. Here the bowl has a low concavo-convex profile.

There is a large one (Type 3A, Fig. 39) where the stem seems to have been shorter, while in an analogous form the side gently flares out (T.3A1, 3A11 Fig. 40). In another case, the angle is very much sharp and the rim edge projects out. In Type 15B, Fig. 47, the bowl proper has a longer vertical profile, and the edge only everted.

The potter-artist of Navdatoli was not content in producing these seven, eight or ten goblets, each beautiful item in its own way. He tried to embellish each form by painting on it. Initially the painting was confined to the bowl only, but we have definite stratigraphical evidence to suggest that this was later extended to cover the stem as well as the base (Fig. 64). In a rare case T. 61A1, D. 477 the rim of the bowl is found painted on both sides.

Thus there is definite evidence that there was an appreciation of art at Navdatoli. There was growth and prosperity in the settlement after Phase I, and this stimulus found expression in profusion or over-ornamentation. This has happened so often. It has happened in India at various periods in historical times, as well as in Europe. For instance the chaste, refined early Gupta images gradually gave place to more and more ornamentation of the deities. This tendency is also seen in architecture.

In Europe, the classical renaissance art was followed by the baroque. Now from a purely artistic point of view, this development might be regarded as undesirable, as there is no true development but only the multiplication of design motives. Many true lovers of art regard this as cheap and vulgar. There it is, even at Navdatoli, some 3200 years ago. There is one specimen of a single conoid cup, where the whole body is decorated in four broad bands, each separated by thick double black line. Of the four bands, the upper band has a design of filled-up triangles shown alternatively upside down, the next band defined by volutes on either side of a double line of zigzages. It will be seen that the painted end of the triangle is contrasted with the volute. Thus the potter-artist has supplied us with a deliberately planned design on the vase.

With regard to the designs proper, although there is a very large number of over 600, a detailed study would show that the essential or fundamental number of such designs would be considerably less. Very often the artist has created a new design, by just adding a few strokes to the well known design, such as a hatched triangle or a diamond with hooks attached to its corners. Since the Central Indian or Navdatoli Culture had penetrated to Maharashtra through Khandesh, we should expect to find such artistic *lotas* and goblets at Prakash and other sites on the Tapi and her tributaries. As the Prakash excavations were of a vertical nature, no intact vessels have been found. Among the painted designs, we do find some which recall those from Iran. In fact, Shri B.K. Thapar himself has pointed these out.[225] The contribution of Bahal[226] on the Girna would have been similar; but here unfortunately even a preliminary report is not published.

Western Maharashtra

Among the sites in Western Maharashtra, Jorwe, Nevasa, Chandoli, Songaon and now Inamgaon have given abundant evidence of the use of painted pottery in the daily life of the people. The forms of vessels such as *bowls*, *lotas*, *ghatas* and spouted pots are not only stereotyped, but the designs are geometrical and very simple. However among these masses of oblique lines, triangles and rectangles, painted in black over a bright red surface, we notice the rare figure of a dog. Unfortunately, the face and part of the neck is lost, and only the back portion with the curved tail is preserved on a sherd. It is probable that this sherd is an import carried by a visitor to Nevasa, probably from Central India, as its surface is slightly worn out. Whatever the original vessel may have been, we find today the profile of an animal most realistically depicted, which belongs without doubt to the dog family, though its exact species cannot be determined.

As I have said before, such faithful representations of an animal have never been found in Indian painting, prehistoric or historic. The exact source of such realistic art in Chalcolithic Maharashtra, of the era about 1200-1300 B.C., is not known. At most we can think of Navdatoli on the Narmada, though this site has so far not given us such life-like representation of an animal.

Probably to the same source also belong two sherds of the rim portion of a bowl, where on a fine red background are painted a row of deer or antelope. Though no sherd gives us an intact or complete shape of the animal, we can form some idea by placing these sherds side by side. In both the examples—of the dog-like animal and the deer the animals are shown in profile with the solidly filled up body including the mouth. We might refer again to a unique bowl from Inamgaon, with a rare design on the Jorwe fabric. Inside, the base of bowl bears a *swastika*, or a swastik-like design.

The *swastika* again becomes a common motif in the Painted Grey Ware which has very limited shapes and very simple designs. Though there is nothing artistic about the Painted Grey Ware it does make a significant contribution to the corpus of Indian pottery.

Female Figurine

Reference should be made to the terracotta female figurine from Lal Quila. This is a site of the ochre coloured pottery. Here excavations by Professor R.C. Gaur yielded a unique terracotta, about 8 cm. high and about 5 cm. in width. Unlike female figurines from the Indus and other sites, the nose, eyes and lips are well modelled and hence very expressive of the personality. The bust is truly well made. There is a hole on the shoulder, which may be for attachment of the arm or for some other purpose.

Likewise the pottery from the numerous megaliths is South India and Vidarbha deserve mention. Again though not an art, it was certainly a distinctive craft. Among its several shapes is a vase-like vessel with a tapering conical base, supporting a small urn with a lid, which has always struck me as beautiful.

Various lid holes, from the megaliths at Khapa, Takalghat and Mahurjhari excavated by Dr S.B. Deo, are also worth noting in terms of art forms.[227] Besieds the lid finials with goat and bird motifs, even the lid with a flower-bud-like hole or final is not less artistic. These megaliths are dated by Carbon-14 dating to 555 ± 115 B.C. and 605 ± 115 B.C., which thus appropriately brings this review of prehistoric art to the thresholds of the historical period.

7 Rock-Art

A century ago hardly anything was known of Indian rock-art, either prehistoric or historic. Today India with many other countries of the world, can boast of a long history of development. Unlike the initial impression, this rock-art is not confined to some hilly and forested parts of Central India (M.P. and U.P.), but found to exist in similar geographical situations in Gujarat-Rajasthan, Bihar, Orissa, Andhra, Karnataka, and Kerala, as well as in the border regions of Indo-Pakistan. Thus its spread or existence is truly Pan-Indian.

Chronology of Rock-Art

However, in all these regions rock-art is not prehistoric, or all that one finds is not prehistoric, as was initially supposed. Nor is it all late, or belonging to the first few centuries of the Christian era. This struggle between the champions of antiquity and of modernity cannot be easily resolved. It requires years of patient research, and the use and application of modern scientific methods and techniques in discovering what is prehistoric in rock-art. The credit for a critical approach to this problem, without undertaking excavations at the sites under study, goes to the late Col D. H. Gordon (1958). We must pay due credit to the earlier British pioneers like A. Carlleyle and J. Cockburn (1899) for bringing to light the painted rock-shelters in M.P., U.P. border, and to F. Faweett for discoverings the carvings of the Kerala cave (1901). These early discoveries were enlarged and commented by Cockburn and P. Brown (1960).

Fresh regional studies, by various scholars began in the sixties.

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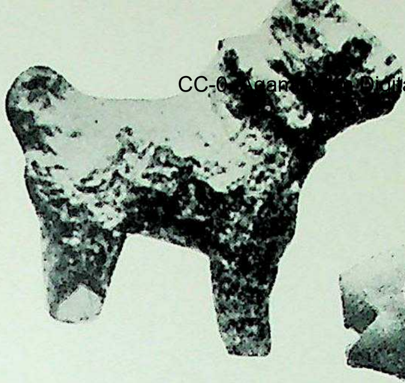

FIG. 30: Bronze dog from Mohenjodaro

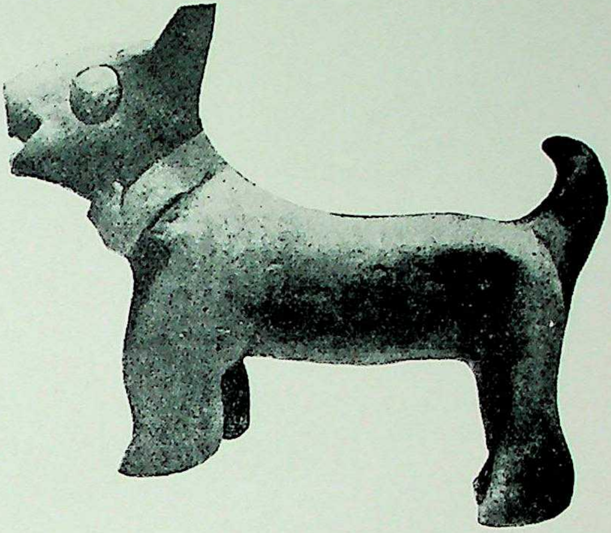

FIG. 31: Terracotta dog from Mohenjodaro

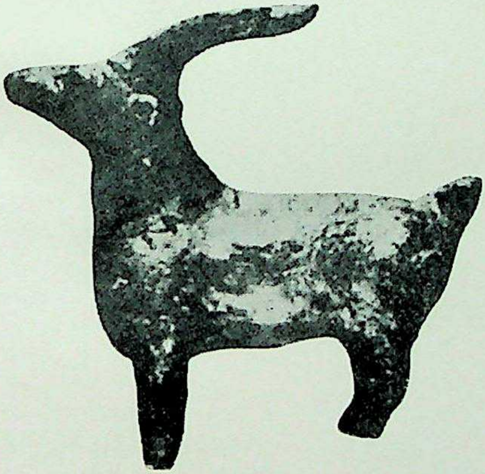

FIG. 32: Bronze antelope from Mohenjodaro

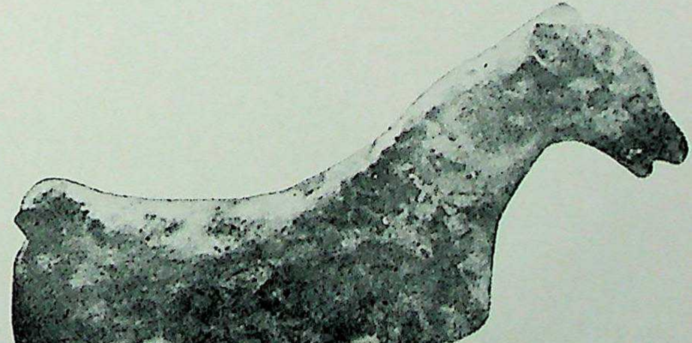

FIG. 33: Terracotta horse from Lothal

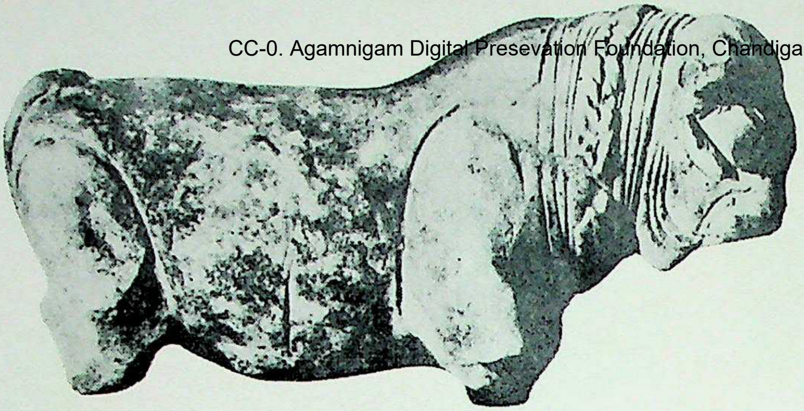

FIG. 34: Brahmani bull in terracotta from Mohenjodaro

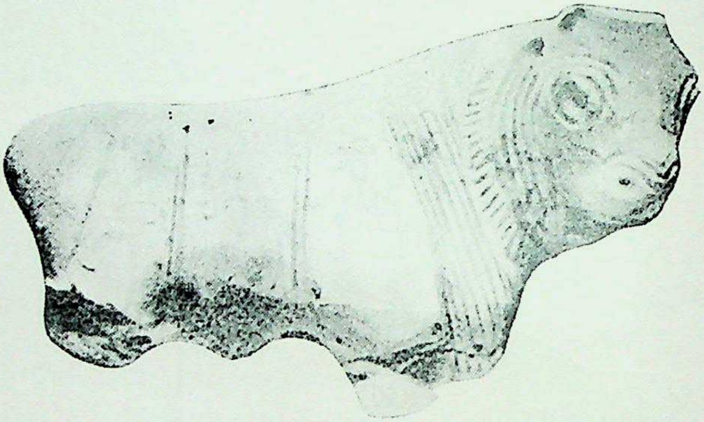

FIG. 35: Bull in steatite from Mohenjodaro

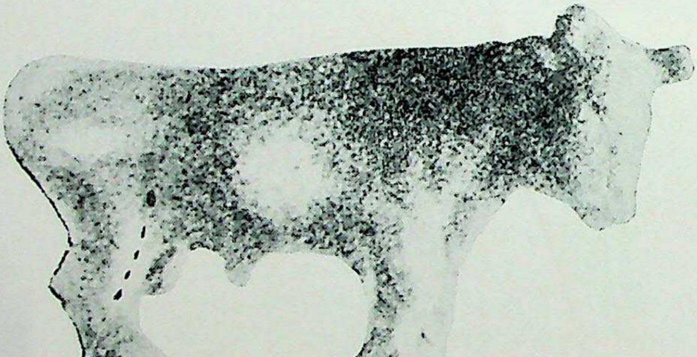

FIG. 36: Bull in bronze from Mohenjodaro

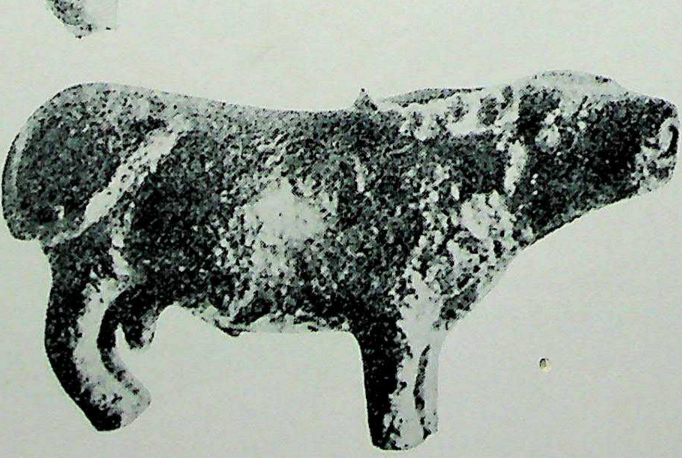

FIG. 37: Buffalo in bronze from Mohenjodaro

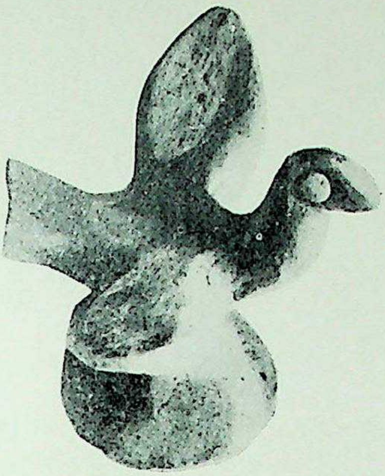

FIG. 38: Bird in flight from Mohenjodaro

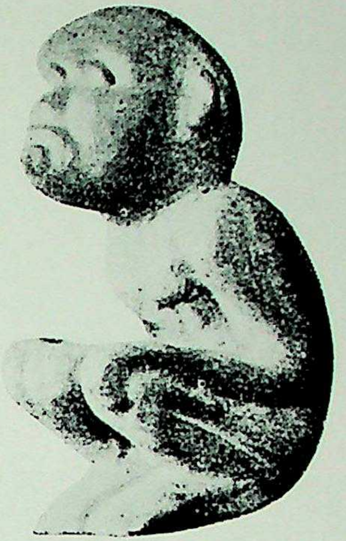

FIG. 39: Monkey in terracotta from Mohenjodaro

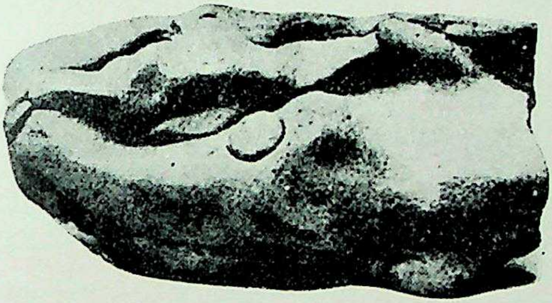

FIG. 40: Crocodile from Harappa

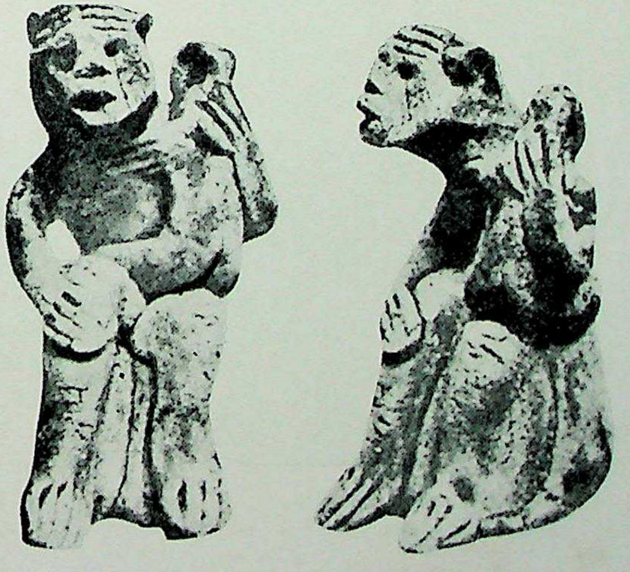

FIG. 41: Monkey mother and child from Mohenjodaro

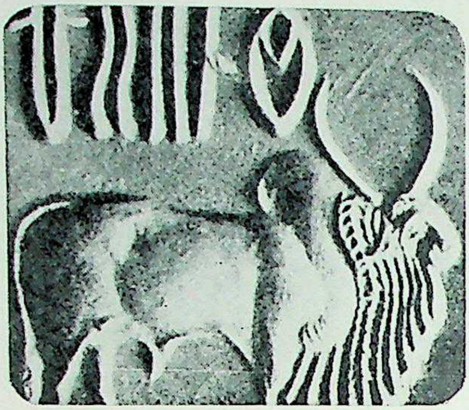

FIG. 42: Brahmani bull from Mohenjodaro (seal)

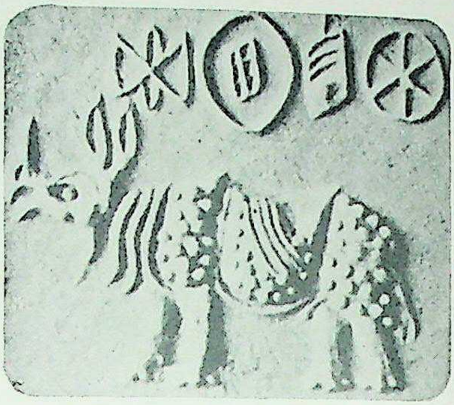

FIG. 43: Rhinoceros from Mohenjodaro (seal)

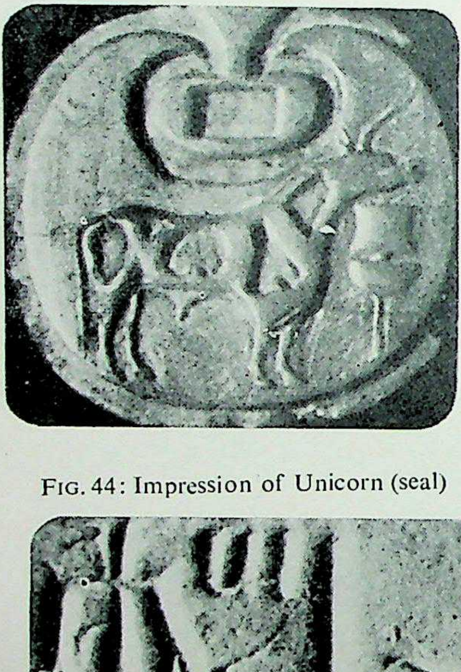

FIG. 44: Impression of Unicorn (seal)

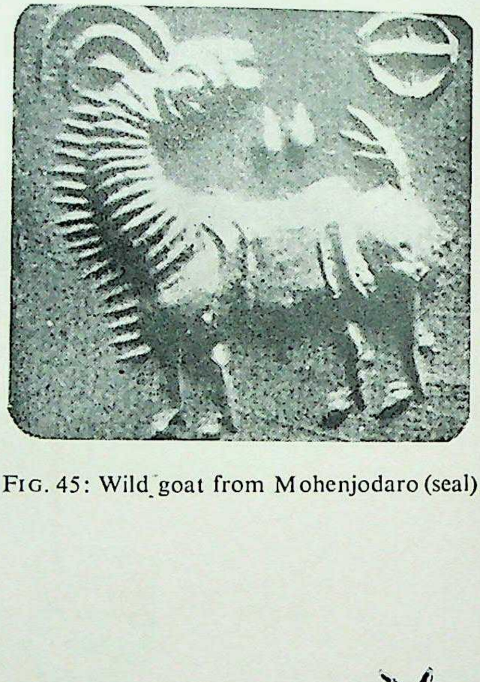

FIG. 45: Wild goat from Mohenjodaro (seal)

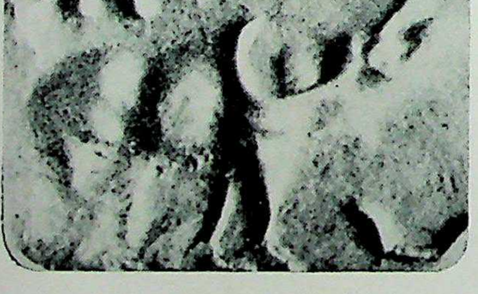

FIG. 46: Impression of buffalo from Mohenjodaro (seal)

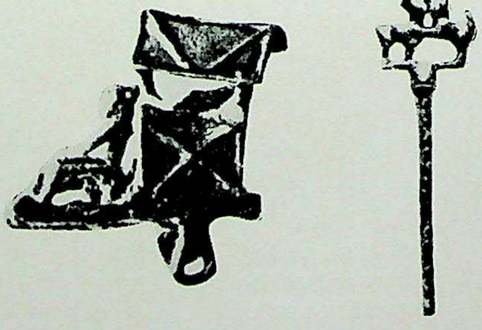

FIG. 47: Bronze rod with goat from Mohenjodaro

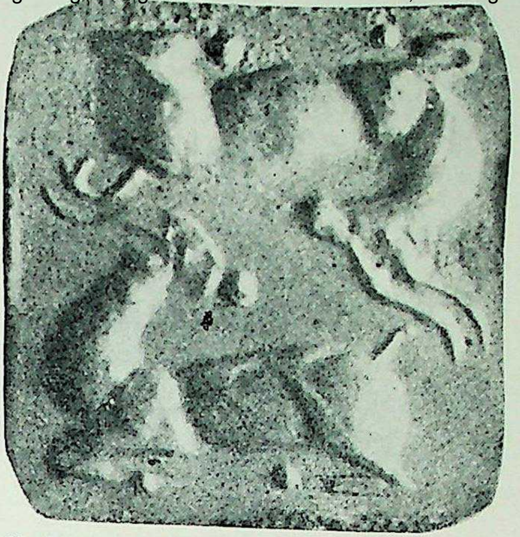

FIG. 48: Steatite seal impression from Mohenjodaro

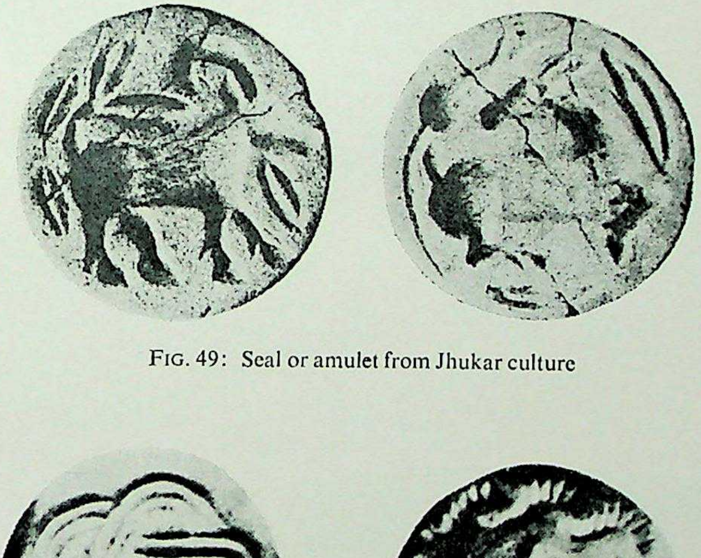

FIG. 49: Seal or amulet from Jhukar culture

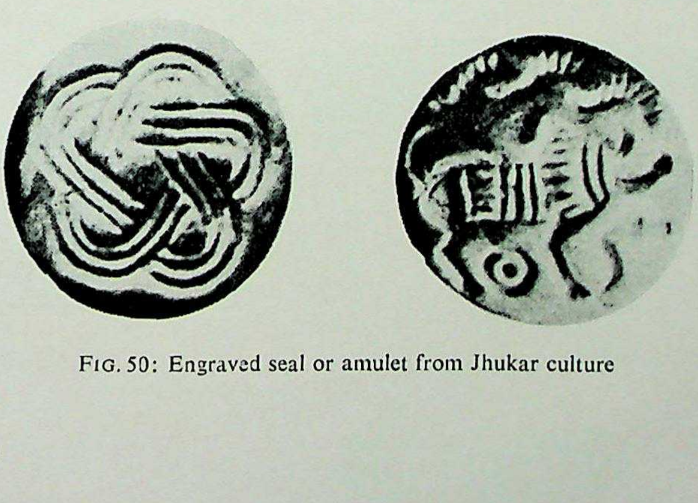

FIG. 50: Engraved seal or amulet from Jhukar culture

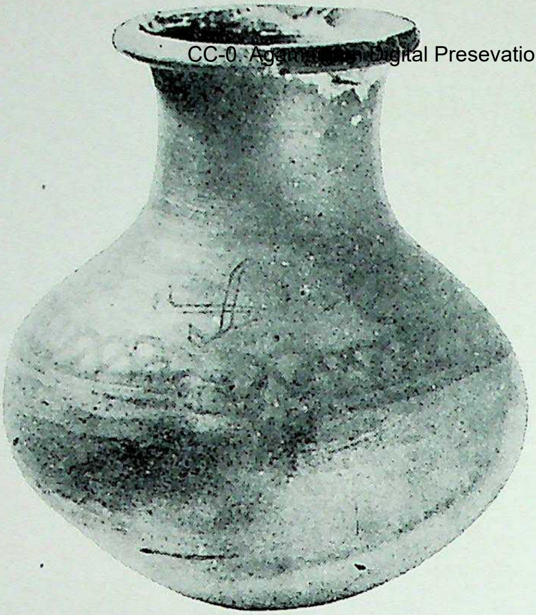

FIG. 51: Lota from Navdatoli, c. 1500 B.C.

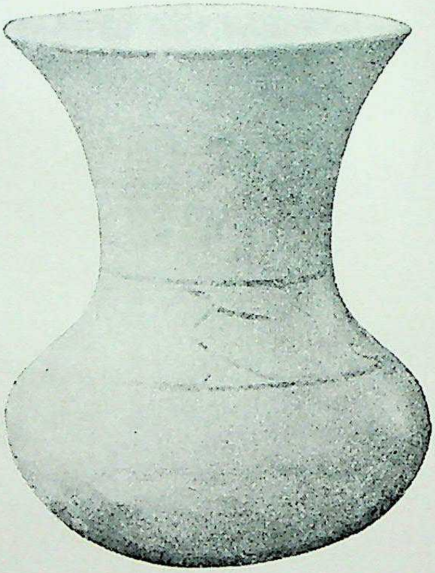

FIG. 52: Lota from Navdatoli, c. 1500 B.C.

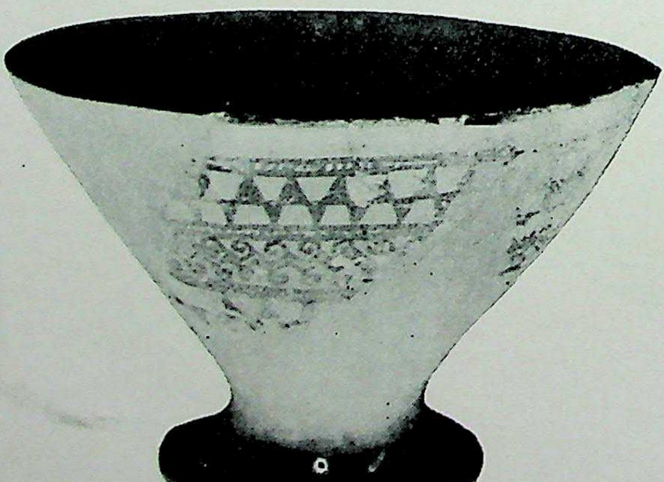

FIG. 53: Goblet from Navdatoli, c. 1500 B.C.

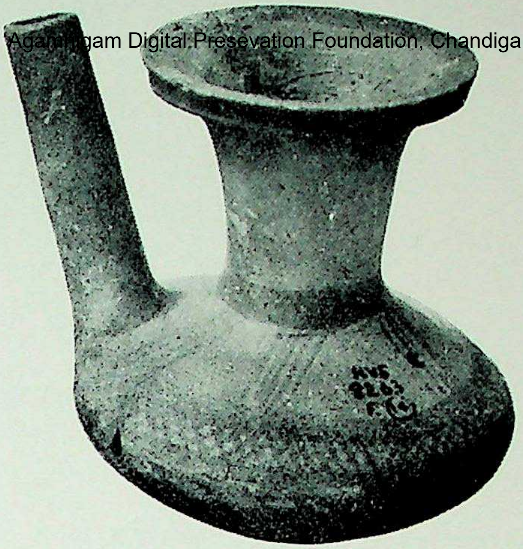

FIG. 54: Spouted pot from Nevasa

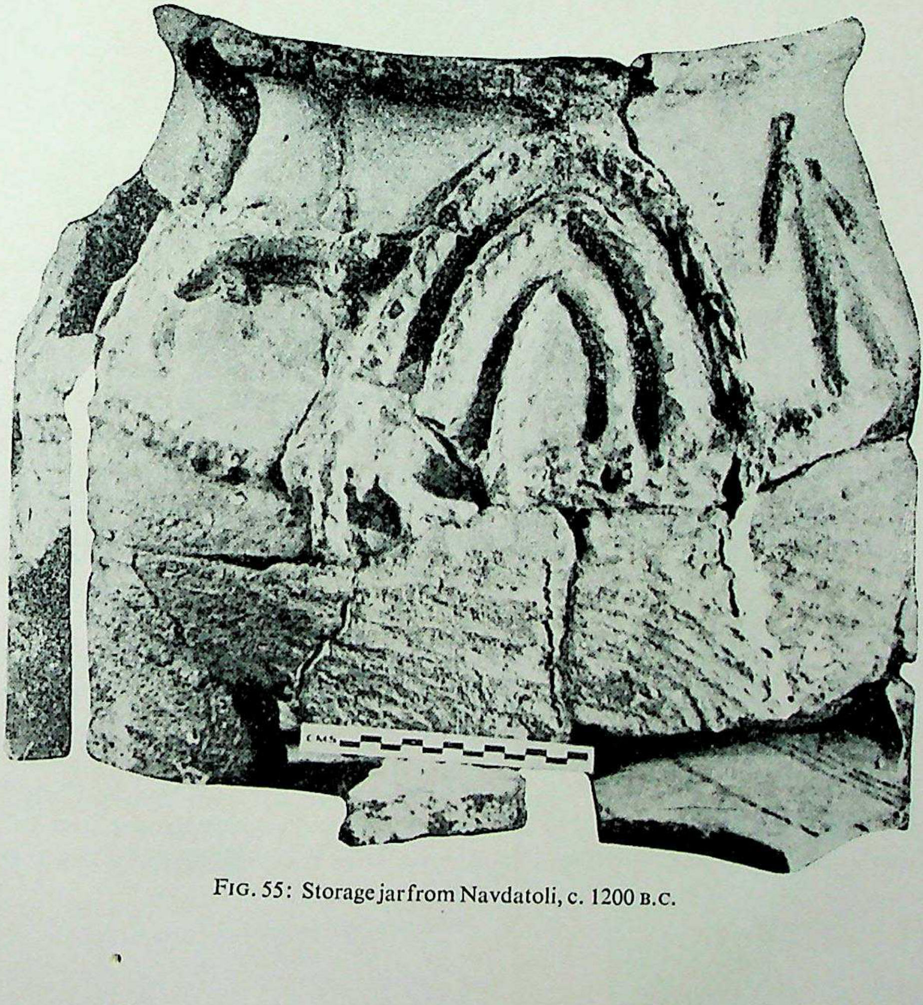

FIG. 55: Storage jar from Navdatoli, c. 1200 B.C.

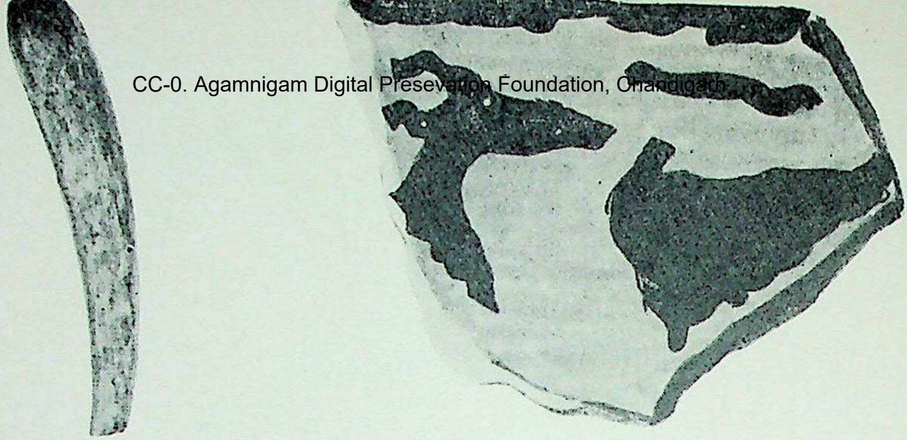

Fig. 56: Fragment of sherd from Nevasa showing deer

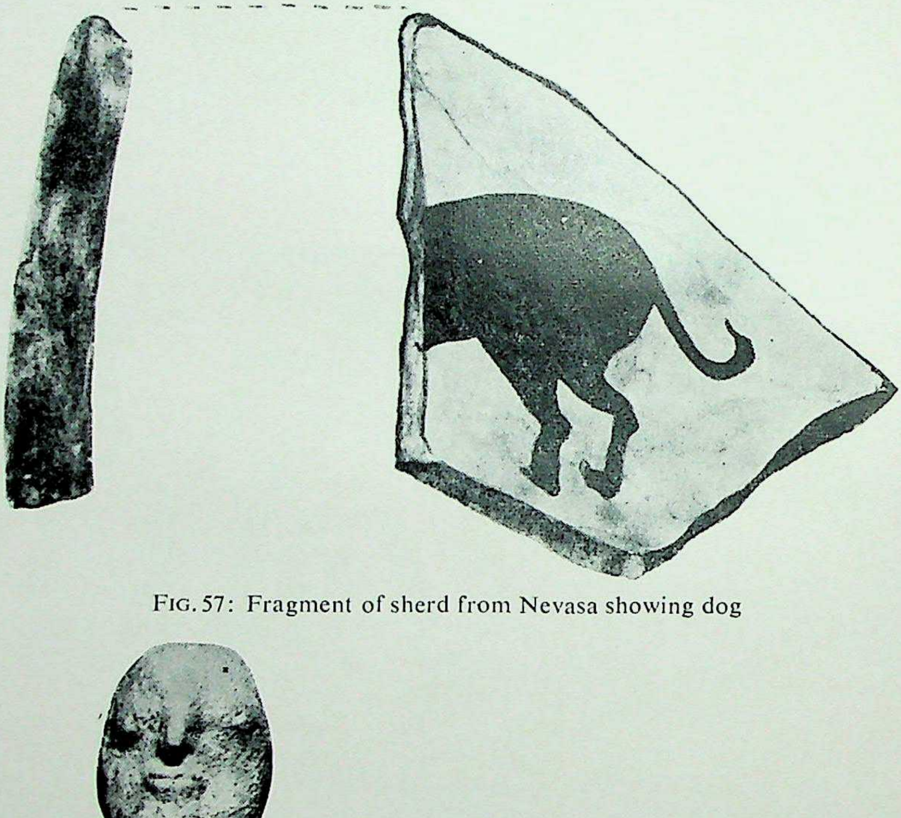

Fig. 57: Fragment of sherd from Nevasa showing dog

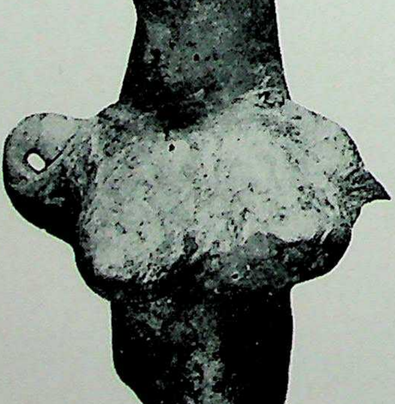

Fig. 58: Terracotta female figurine from Lal Quila, Bulandshahar, U.P.

Their discoveries and interpretations have given us a fairy good amount of data for a critical study. The first detailed attempt was made by Dr V.S. Wakankar in 1973. Wakankar's study has a two-fold significance. Himself an artist, an intrepid explorer, and well-versed in several branches of archaeology, Wakankar was ideally qualified for the difficult task of bringing some order to the riddle of drawings, etchings and engravings. There are sites which are not easily approachable by any conveyance, and have to be seen on foot. Then all the specimens at any site cannot be photographed, but drawn on the site. An artist alone can do proper justice to them. Above all, one must be able to distinguish between the various layers of superposition, and this required an intimate knowledge of the subject depicted: that is the various items or objects shown in the pictures, and their probable time-range.[228]

Wakankar's excavations as well as those of Dr V.N. Misra conclusively show that these rock-shelters have been continuously occupied by man for the last 1,00,000 years or so. According to the evidence from rock-shelters, the earliest examples of art would belong to about 5,000 B.C. With this definite time-span we have embarked upon a more detailed, careful and exhaustive study of the rock-art at Bhimbekta. This work has been entrusted to Shri Y.D. Mathpal who has copied more than 350 paintings from Bhimbetka alone. Thus my present task has been considerably lightened because all the ground work had been done by two of our students who are professional artists as well.

Rock-art does not consist of paintings on surfaces alone. It also includes etchings, engravings and bruisings.

Distribution of cave shelters

Rock-art cannot flourish anywhere and everywhere. It must have a suitable atmosphere or environment, though very recent evidence from Kerala might necessitate some change in our views. Thus far, all our knowledge of art in India has come from regions where there are sandstone, or limestone or granite caves, or rock-shelters amidst a comparatively thin forest, where the rainfall was not heavy, not more than 40 or 50 inches per annum. These caves and rock-shelters must have again such sheltered surfaces which man could reach, with some efforts if not very easily. These surfaces must be fairly flat and not uneven.

Thus the whole of the Deccan plateau consisting of basaltic lava, and now called Maharashtra is devoid of such rock-art.[229]

Leaving the Deccan plateau proper we go either south or north, or northwest and southeast, we find that the Vindhyas in Madhya Pradesh and Uttar Pradesh, even the granite hills of southeast Rajasthan, and the limestone, sandstone, and granite hills of Andhra, Karnataka and Kerala have been the haunts of early man and his successors. There people have left traces of their thoughts and feelings on the walls of their temporary or seasonal homes.

Of course these records of paintings, etchings and engravings, are not rich either in content or in artistic expression, as compared with those of western Europe, particularly of the Dordogne in France and Santander in Spain. Still these records should have a place not only in art history, but in the history of man in India. As mentioned previously, the rainfall is not heavy in any of these regions. In fact, it is indeed scanty in the limestone, sandstone and granite hill areas of Andhra-Karnataka, with only a scrub vegetation and almost open bare hillocks or boulders. Here on flattish surfaces, not much exposed to the sun and rain, man has chosen to paint and etch and engrave. The question is, since when has man been doing this, and why and what did he do?

Conditions in Madhya Pradesh are slightly different. The Vindhyas which run across India in the form of an arc, from Bhopal in the west to Mirzapur in the east, with occasional openings and rolling plains, have provided an ideal setting. The caves and rock-shelters are comparatively large, with plenty of flat surfaces at various levels for man to work. More than this advantage, man must have had a much easier and richer life than in Andhra-Karnataka, with Madhya Pradesh having more regular rainfall than its southern neighbours, and good soil yielding bumper crops.

The eastern Vindhyas now falling within the Rewa, Banda and Mirzapur Districts of M.P. and U.P., have not got such a favourable environment. The rainfall is not much, hence the vegetation scanty, and the soil also not rich. Until recently this area was not much used for cultivation, as there were no irrigation facilities.

It is against this background that we have to see man's artistic development or activities.

Wakankar has divided the various regions into 36 groups, in his elaborate study, and indicated the areas, with the names of important sites in each of these areas. For our purpose, however we shall follow the *broad* regional distribution sketched above. For, according to Wakankar's list, there are more than 150, "areas" with several sub-sites in M.P. and U.P., two in Bastar (Gopansar on Chitrakota), two in Orissa, 14 in Karnataka and three in Andhra, and three on Andhra-Karnataka border. To this long list, we might add two from Kerala, the Edakkal cave, and the Marayoor shelter.[230]

All the six sites within the vicinity of Bhopal were discovered by Wakankar (1957). He was also responsible for the discovery of sites in the Raisen area, though Putlikarar was the work of S.K. Pande, and others. The sites in Gwalior, Tikla, are again Wakankar's discoveries (1957), whereas all the five sites in Agra region were brought to light by J.P. Gupta. Wakankar again revealed the existence of 13 sites in Bhanpura (1960) region, so also at Rampura, and Singhauli, Jawod, and Kota-Jhalawod, as well as Delwara at Mt. Abu. Bhimbetka again is mainly his discovery (1960), while others have had a hand in the discovery of Jondra, and Lakhajnar.

The two sites in the Bhojpur were again discovered by Wakankar. The famous painted rock-shelters at Adamgarh, near Hoshangabad were discovered by Hiranand Shastri as far back as 1921; later commented on by Manoranjan Ghosh, and excavated by R.V. Joshi in 1960. The shelters of Sehore and Rajgarh and Nimar were discovered by Wakankar in 1960, and 1970.

Thus Carlleyle and Cockburn[231] in the northern region of the present M.P.-U.P. border, and Newbolt, Munn, Foote and Fawcett in the south were the principal discoverers of specimens of rock-art during the last century. These initial discoveries were highlighted by the work of M. Ghosh and Col Gordon in the early thirties[232]. Jagdish Gupta was one of the first to give it a recognition and bring it to the attention of Hindi scholars in his book, *Pragailitasik Bharatiya Chitrakala*.

What is presented here is largely based on Wakankar's work. Fortunately again, I have had the opportunity to enlarge and illustrate the rock art of one particular region, viz. Bhimbetka, near Bhopal. This group of caves and rock-shelters was discovered by Wakankar as far back as 1957.

Phases of the Prehistoric Style

Since this is primarily a historical narrative, and not an exhaustive treatment of rock-art in India, it has not been attempted to isolate the various accepted phases of prehistoric styles, region by region, and then present a connected account of the development as a whole of prehistoric art in India.

Though a number of regions within the Vindhyan sandstone formations of M.P. and U.P. contain paintings, not all are necessarily old or prehistoric, as one is led to believe by works like that of Jagdish Gupta. Nor do all the regions or subregions contain paintings of all periods. As Wakankar has well shown by a very careful analysis of the styles of paintings and their contents, some regions or sites like Bhimbetka and Kharwar (both in Raisen District) exhibit almost all the 20 styles, and hence present a rich and full span of man's artistic expression, his habits and moods over a period of 5000 years. Many other areas contain a few styles only, and these may or may not contain anything prehistoric.

To decide whether a painting is prehistoric or not, objective criteria have to be laid down, and followed as far as possible. In the absence of spectographic analysis of the colour media, and infrared photography, what has been done is:

1. To make a typological study of different styles,
2. To differentiate between the nature or degree of patination on the paintings,
3. and differentiate this from simple encrustation,
4. Next, to stratify the superimposition of the paintings: their subject matter, and the style adopted in representing it,
5. The typological study of the contents and styles is facilitated by a comparative study of rock paintings with those on pottery of known dates or periods, with specimens of folk art, and by an overall impression made by association with the subject matter in a given painting.

With all this we may be able to draw broad inferences about the general nature of paintings, and their style at various periods.

From such a careful and elaborate study, Wakankar has classified five broad periods, each period having two or three sub-periods. Of these five periods only Periods I and II concern us because the remaining three fall within the historic era. It is interesting to note that at some sites like Bhimbetka, we have paintings of all the periods, thus giving us a panoramic history of the artistic and cultural development from about 5000 B.C. to 1700 A.D. and after.

While we would deal in detail with paintings of the two prehistoric periods, specimens of others will be illustrated and briefly commented on, to help us in distinguishing the prehistoric from the later treatment.

The two prehistoric periods can be broadly dated from an analogy to the styles of paintings observed on the pottery from Kayatha and Navdatoli, and those on the rock-shelters at Bhimbetka and others in the Bhopal area. Several carbon-14 datings help to place the Kayatha and Navdatoli cultures between c. 2000 B.C.—1200 B.C.

This comparison between the excavated sites in the plains of Malwa, and the paintings on rock-shelters around Bhopal, has been suggested because during the excavations used nodules of red ochre were found in the rock-shelters. These were presumably employed by man, who drew the paintings on the rock. Further, these excavations also yielded a few potsherds of the type found at Navdatoli, and surprisingly these bear paintings, exactly as those on the rock paintings and in the pottery of Navdatoli. Thus it is reasonable to argue that the cave-dwellers had established trade or other contacts with the then developing or emerging villages and towns. It is this contact which is reflected in the rock-art.

Period I has three sub-divisions as Ia, Ib and Ic. All these belong to the Mesolithic phase, that is the transition phase between the Upper Palaeolithic and Neolithic-Chalcolithic, and is dated between 5000 B.C. to 2000 B.C. Period II has again three sub-periods, a, b, c, and has a long time span of about 2000 B.C. to 500 B.C.

According to Wakankar, the earliest rock paintings of Period Ia, are found at four sites: Adamgarh, Cave 10; Modi, cave 4, Gandhi Sagar, and Abchand. At these four places only, one may see a large-sized elephant or a bull-like animal painted in red wash. The size of the animal at Adamgarh is 4 ft. 8 ins., at Abchand 7 ft. 7 ins. The paintings are done in red ochre, in direct wash without drawing an outline. These paintings have patination, bear some enerustation, and have become faint. The elephants are tuskless, shown individually and without association with human beings.

In Period Ib, we have a slightly different style (2). The paintings are faint and patinated as before, but now they are in red outline. Instead of elephants, mostly buffaloes and bisons occur, and these too in large size. The sites where one may see these are: Adamgarh 10, Kharwai-1, Bhimbetka Auditorium, and Badami-Talkota. The buffalo at Adamgarh is 10 ft. in length, whereas the bison at Badami and Kharwai is 5-6 ft. in length.

The specimens of Period Ic are largely confined to the Bhopal area. The subject matter of deer and bison are again in red outline, and follow the muscular outline of the animal's body. Further, the body of the animal, which was blank in Period Ib, style 2, is now partly filled up by non-geometric lines, the animals being mostly antelopes and bisons.

This next subphase of Period Ic might be regarded as most significant. For according to Wakankar's study, human figures as hunters appear for the first time—and that too in association with animals such as the bison, the rhinoceros and elephants. The distinctive feature of the style of painting is that the body of the animal is filled with red wash, but a portion in the centre is left vacant, and sometimes filled by thick vertical and oblique lines.

Another feature is also evident of this period. Hence Wakankar prefers to designate it as a distinct style (style 5). The paintings which are in purple red or dark red, in thin outline, contain several geometrical and floral patterns. Thus at Kabrapahar we notice for the first time "hollow cross," and its quarterfoil rounded or elongate, or a "sun" with rays, either solid, hollow or encircled by another circle. Two concentric circles with three vertical lines are seen in Bhimbetka 5.

At Piklihal, in Andhra, is seen a "doublelined cross" and a "circle." At Edkal, in Kerala, there are engravings of spoked circles.

Interesting too are the hut or houselike patterns at Putlikarar and Modi, whereas at Shahad Karad human figurines are shown inside these "houses." Before we proceed to the paintings of Period II, we should draw attention to the fact that these circles, crosses and sunlike patterns also characterize the pottery from Navdatoli and other sites in Malwa. It is possible that the forest-dwellers had seen and even handled this pottery and a reflection of this familiarity with Chalcolithic cultures is seen in their dwellings.

It does not seem to have happened the other way round viz. the villagers copying or imitating the expression of the jungle tribes. In the Chalcolithic homes, these and other designs on pottery formed a regular feature of one of their most important possessions. Period II has again three sub-divisions, and comprise six styles (nos. 6-II). For the first time, the man introduces a white paint in his rock paintings. At first this is seen as white lines inserted between and around red lines in the animal body, for example at Raisen, Kharwai and Bhimbetka.

This treatment seems to get tremendous encouragement and we find the animal body drawn in dark, mauvish red, filled with no less than 31 patterns. Of course, these patterns are formed by permutations and combinations of straight and wavy lines. This explosion in patterns is not confined to a few sites, but documented from 31 sites, all in Madhya Pradesh and its eastern borders. If style 7 of Period IIa is notable for its several geometric patterns, style 8 is remarkable for the appearance of some new animals, or another species of the animals seen beore; the peacock, the dancer, and deer.

All these new features deserve further comments. The human figures are drawn very schematically, in a triangular form with hands on their waist and legs spread apart, a pose which reminds us of modern drill in physical training. In fact this painting seems to depict expresely a war scene, as the platoon of five men is led by a leader with a spear held in his hands. That he is the leader is definite, because he alone is shown taller than the rest. Secondly, he wears a crown perhaps of twing or animal horns, with the lower garment slightly longer.

The pregnant cow and some other animal at Modi 4 and (Baniaberi) (Pachmarhi) are shown with the young one in the enlarged body of the animal. The horns of the animals not only show a distinct variety, but at Gwalior we see for the first time the buccrainian—horns shown in the form of an arch.

The peacock is seen drawn for the first time at Tikla; while at Tekkalkota it is depicted by a punctured decoration on a pottery lid. Tekkalkota also contains two extraordinary exhibits. One is an almost life-size representation of a bull, shown in profile, on the vertical face of a solitary boulder, now in the plains. The other is the impression of a human palm, carved out on the oblique flat surface of a boulder now perched among a group of boulders, in one of the largest terraces at Tekkalkota. It is indeed a wonder how the Neolithic or the Megalithic inhabitants of the hill carved out, in fairly deep relief, so accurately a human palm. Probably by employing similar techniques, prehistoric man in the Edakkal Cave produced so many "crosses" and other etchings.

Here there is a range of hills, knows as the Edakkal Mala. On its western slope, near the crest are to be found two caves, both natural clefts. The first cave is said to have no antiquities, but the second, situated 400 m above the first, contains carvings on its walls. These are indeed unique, and difficult to be classified as "carvings." The figures are drawn in straight lines, and without many curves. One may also identify among these figures dogs, deer and elephants and also tantric symbols. Except for a few quartz flakes and a fluted core, no other item of antiquity has been discovered so far. With such data, it is difficult to calculate the date. At Sagar, Bhimbetka-200 and Morhana in Mirzapur the next stage is marked by paintings in all white. At the last mentioned site, as well as Abchand, there is no superimposition of later paintings. However, at Kharwai-II, 52 and Bhimbetka-200, we find this style of paintings superimposed by style 11. In the last but one treatment of paintings, we meet the tiger for the first time, at Kharwai-200, Human beings are shown stick-like at Singapur-2. Lastly this treatment presents only deer at Abchand, Kharwai, Putlikarar. At all these three places, these are superimposed by early historic drawings in white.

Historic Paintings

The features which help us to mark off the prehistoric paintings at various sites need to be briefly pointed out and illustrated. There are four points or criteria for distinguishing the prehistoric from the historic paintings. First, the later paintings are done in red outline, or white outline and bear occasionally traces of yellow and green.

Secondly, these paintings are associated with Brahmi letters and/or symbols such as the swastika, crescent-on the hill, hollow cross, and flower-like designs. Such symbols first appear on Punch-marked coins. Slightly later we see the appearance of the Kalpa-vriksha symbol, and a flower vase with horse.

We illustrate these from Bhimbetka, III 30: the horse in the Pisacha rock-shelters. In the former the horse and flower are depicted in white, green and yellow. In the Pisacha cave we see the swastika, and a figure of man done in red.

The appearance of the horse and horse-riders from several sites at Bhimbetka, Kharwai, Putlikarar, Bhopal, Adamgarh and Banda is extremely significant. Not only do such horse figures help us in demarcating the onset of the early historic times; but they also corroborate, in our present state of knowledge, the emergence of horse and horse-riding as a symbols of civilization. This stage can be sandwiched roughly between the late Mesolithic and the early historic eras. Unfortunately all examples from the early historic period are comparatively late, of about the 3rd and 4th century B.C. Still there is little doubt that the earlier phases of this might and should go back at least to 2000 B.C. We know now definitely that the people of Kutch and the Harappans of Lothal-Rangpur were familiar with the horse. So also were possibly the people of Navdatoli in Madhya Pradesh and distant Hallur in Karnataka.

Students of rock paintings should try to procure evidence of this period, between 2000 B.C.—400 B.C. of which so far little has been found. While this evidence may be obtained in future, the little data now known underlies the fact that forest and cave dwellers were not familiar with the horse much before the 4th century B.C. This was because the horse itself became a part of the Indian life comparatively late, particularly in towns and cities. If so, the traditional view point that the Aryans brought or introduced the horse may not be far wrong.

Whatever might be the case, these horse scenes are further superimposed upon by polychrome paintings. At Bhimbetka and Kharwai, red, white, green and yellow are seen, whereas at Pahchmarhi several caves depict war scenes in red outline with white infillings.

Lastly, we see the war scenes and processions done in red and white, with no superimposition. According to Wakankar these paintings are very late, of about the 15th century. For these may be compared with the drawings from Hoshang Shah's tomb at Mandu and the survival of art forms in Malwa, Uttar Pradesh and Bihar.

Dr Wakankar's critical study removes almost 50 per cent or more of the rock-art from the prehistoric period. Earlier Dr Jagdish Gupta in his *Prag-Aithihasik Bharatiya Chitra Kala* has included almost everything in his survey, which is otherwise excellent. These distinctions are inevitable, if we are to arrive at real knowledge.

One has to be ever alert, willing to accept the expanding frontiers of early man's knowledge of things. In France he is now credited with the record of lunar notations on animal bone, some 20,000 years ago. His successor in Britain built megaliths, with a knowledge obtained empirically, of the movements of the sun and the moon and of mathematics, to accurately construct such stone monuments.

Conclusions

We are still learning about early man in India. A broad outline of the development of his material culture is faintly visible. This spans at least a period of some 500,000 years. We still do not know what physical changes developed alongside with this purely technological development. In the western world, rock-art is broadly credited to the *Home sapiens*. So also should be in Africa, and India. Yet we would like to know much more about the man himself, and secondly about his progress, and above all, whether we can ascribe his artistic activities to an earlier date.

As far as the art of painting is concerned in Madhya Pradesh, during the last five years we have leapt backwards some three thousand years. Probably this also will be the story in Uttar Pradesh, Andhra-Karnataka and Kerala. It is probable that we might find traces of still earlier engravings in the caves of Kurnool which have already yielded the earliest tools in bone, made with a burin or chisel, exactly as they were made in western Europe, some 20,000 years ago. These would be assigned to the same time as the unique human figurine of bone from the Belan gravels in U.P. and a design engraved on an ostrich egg shell from Patne excavation in Maharashtra.

Purpose and Significance of Rock Paintings

The question that now remains to be answered is: "Why did man paint and engrave in the caves and rock-shelters? Do we attribute, as we must, the little bone figurine and the thinly engraved ostrich shell to a real desire to have an image of himself, and to decorate his person with ornaments.?"

Such questions have been raised during the last hundred years. So far no satisfactory answer has been found. Many of the earlier writers, like Sollas and MacCurdy, have attributed some of the peculiar or characteristic scenes in the French and Spanish cave paintings to magic, fear and religion.

In 1903 Solmon Rainach suggested that the purpose of painting only animals of the period was to put a spell on the hunted game, in order to attract a large number to the vicinity of the cave. To MacCurdy the origins lay in fear of the animal, magic and religion. De Morgan and Franz Boas independently came to the conclusion that these paintings were purely for personal delight or we might say "art for arts sake." So also was the considered opinion of Abbe H. Breuil.

Much more systematic work by Prof. Andre Lerois Gourhan of Sorbonne, carried out with the help of Mme. Annette Laming, comes to the conclusion that the repetition of certain animals showed the prevalence of some mystic religious belief. In India, as in France and Spain, we have noted one common feature. This is the absence of any human figure in all the early paintings. Stick-like human figure appear only in about 1500 B.C. In both, the subject is the representation of certain animals such as the bull, bison, elephant, deer or antelope.

Here the similarity ends. In India we have not got that much data that has been available in France and Spain, so that a worthwhile study can be made from the point of interpretation alone. Secondly, the presence of paintings of a later period makes the task difficult. The observer is not cent per cent certain whether he is dealing with paintings of the earliest phase, or some intermediate phase. One may say that man in India liked to draw the animals he saw and moved with. These are often portrayed faithfully and with great vigour, whether done in outline or wash. The techniques employed were quite simple. Thin or thick brushes were made by crushing some suitable branches. Some painitngs might have been made by the fingers as well, as in the paintings at Ajanta. The background was never prepared. Whatever surface—flat or coarse or uneven, sometimes in high, now seemingly inaccessible, places was chosen. One wonders how any work could be done at all without sufficient light. In the caves of France lamps fed on animal fat were used. In India too, some such aid must have been taken, though Wakankar thinks that animal fat was not used. The latter could not have been unknown.

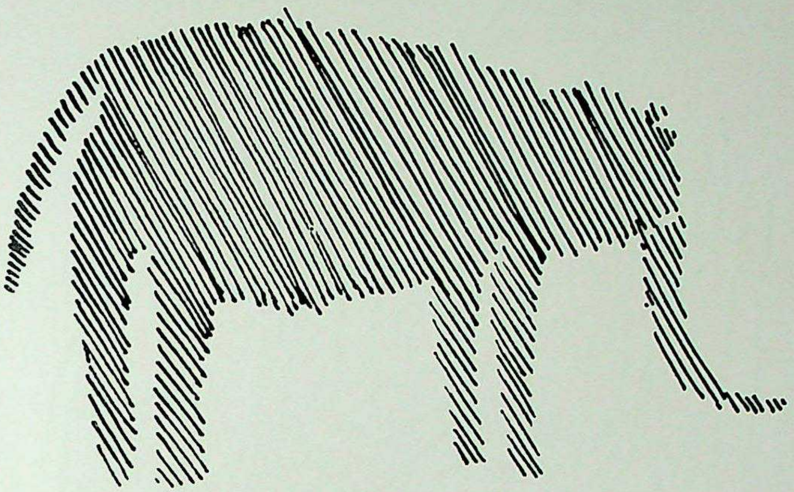

FIG. 59: Large-sized elephant at Adamgarh of period 1-a

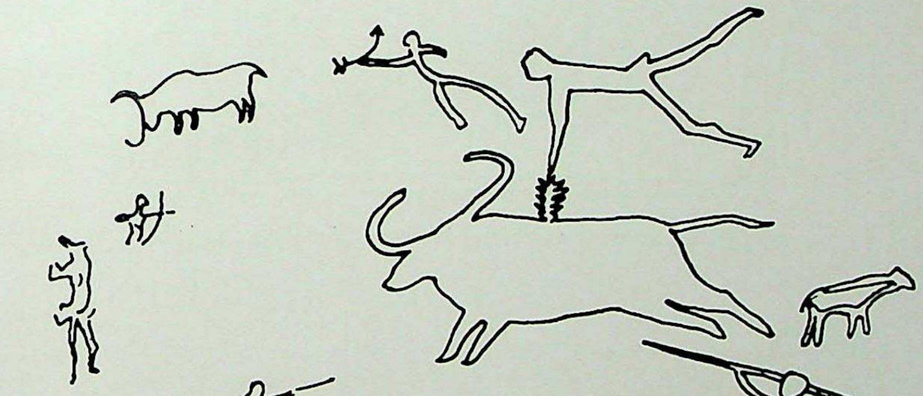

FIG. 60: The hunters with hunted animals of period 1-e

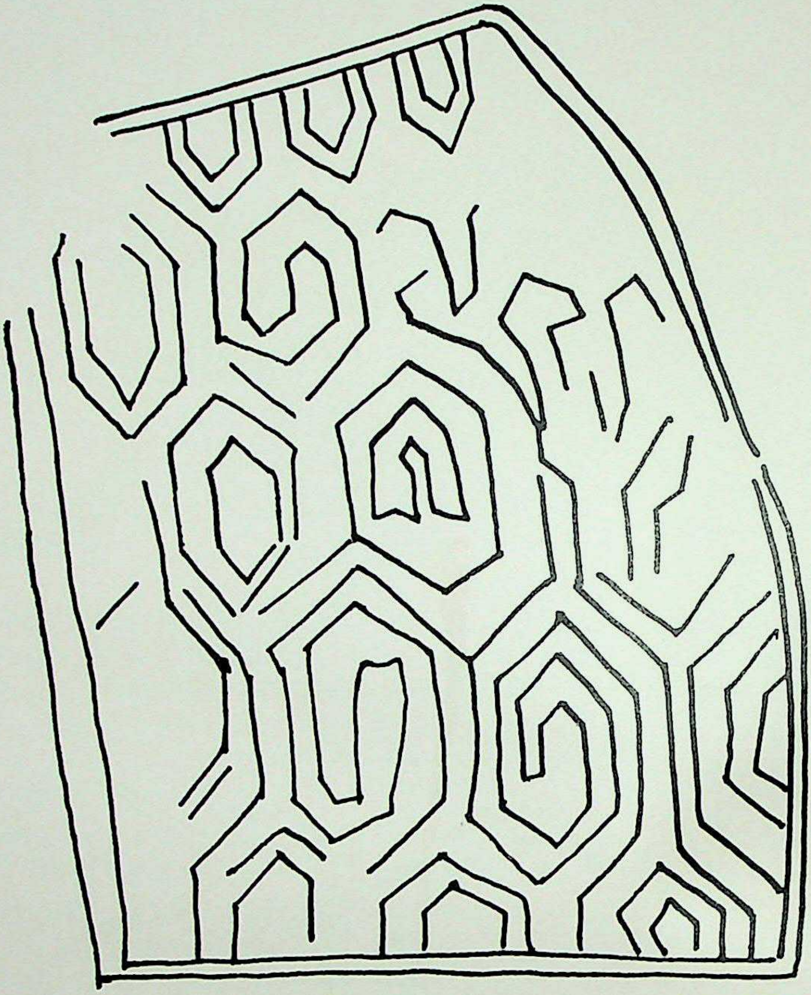

FIG. 61: Geometrical and Floral Motifs at Bhumbotka style 1

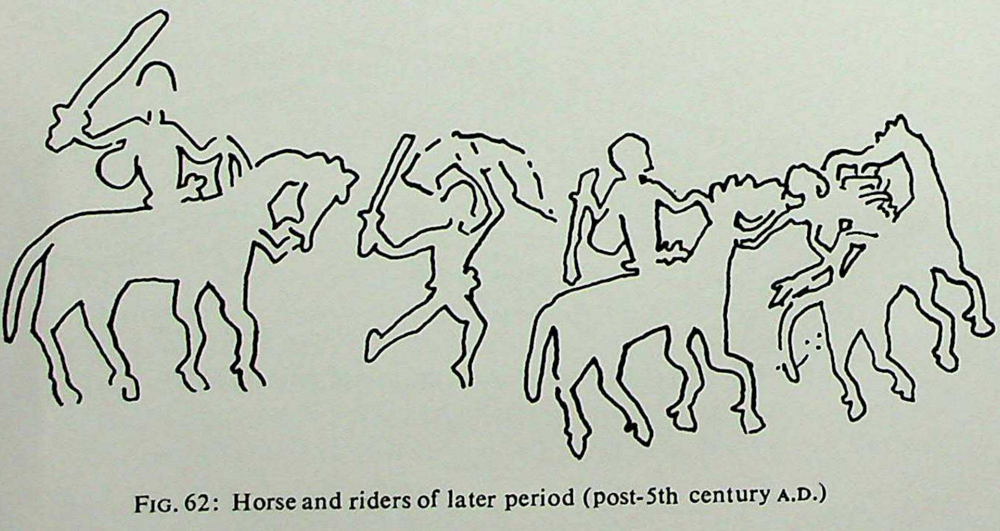

FIG. 62: Horse and riders of later period (post-5th century A.D.)

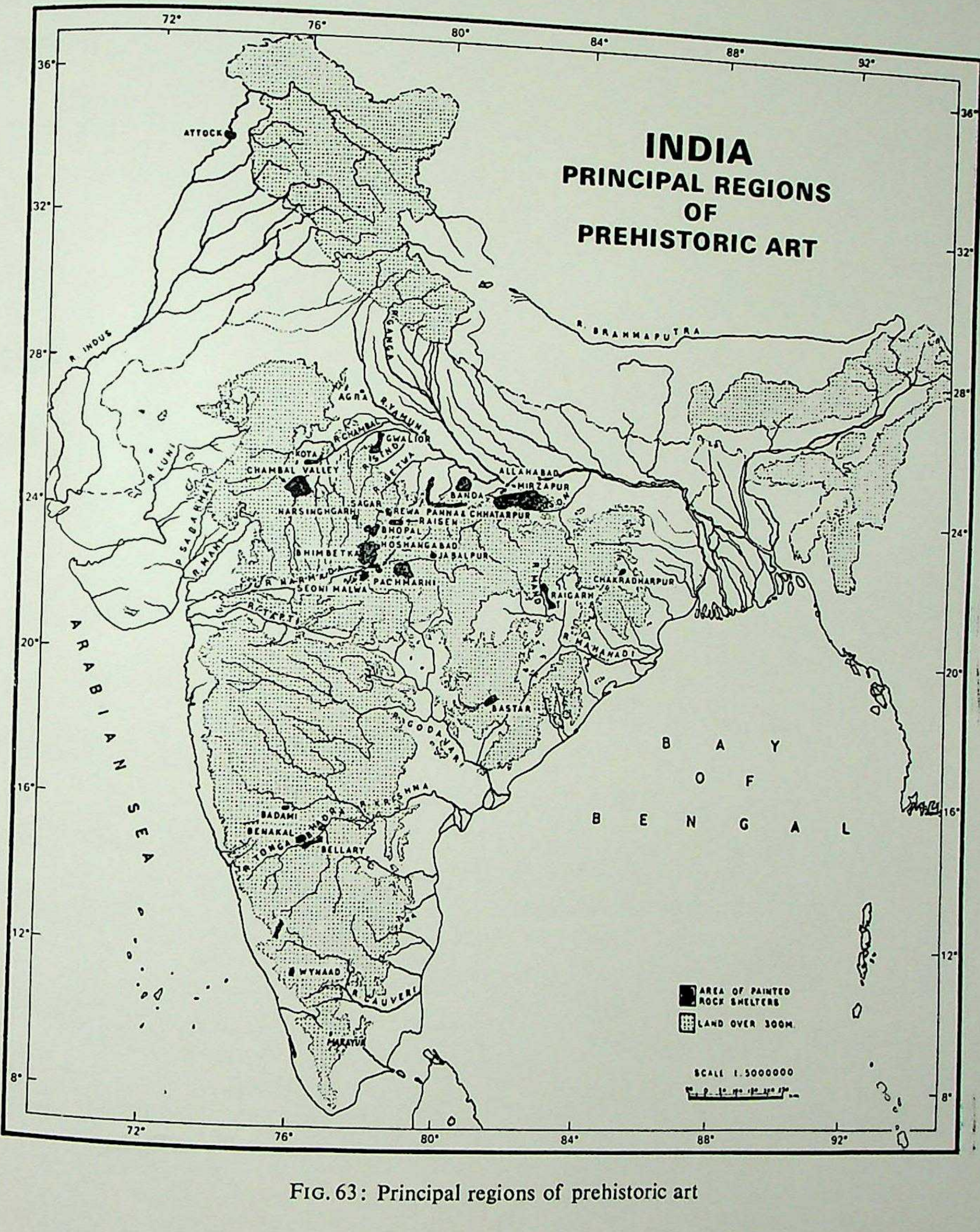
INDIA
PRINCIPAL REGIONS OF PREHISTORIC ART
ATTOCK
R. INDUS
R. LUNI
R. SABARMATI
R. MAHI
R. NARMADA
R. TAPTI
R. GANGA
R. YAMUNA
R. CHAMBAL
R. SIND
R. BETWA
R. SON
R. BRAHMAPUTRA
R. MAHANADI
R. GODAVARI
R. KRISHNA
R. TONGABHADRA
R. KAUVERI
AGRA
GWALIOR
KOTA
CHAMBAL VALLEY
ALLAHABAD
MIRZAPUR
BANDA
SAGAR
NARSINGHGARH
REWA
PANNA & CHHATARPUR
RAISEN
BHOPAL
HOSHANGABAD
BHIMBETKA
JABALPUR
PACHMARHI
SEONI MALWA
CHAKRADHARPUR
RAIGARH
BASTAR
BADAMI
BENAKAL
BELLARY
WYNAAD
MARAYUR
ARABIAN SEA
BAY OF BENGAL
AREA OF PAINTED ROCK SHELTERS
LAND OVER 300M.
SCALE 1.5000000
72°
76°
80°
84°
88°
92°
36°
32°
28°
24°
20°
16°
12°
8°

FIG. 63: Principal regions of prehistoric art

Notes

[1] *National Geographic*, vol. 143, 1973, pp. 819-29.
[2] *Indian Archaeology—A Review* 1970-71, 1. LXIX, B.
[3] *Ibid.*, p. 36.
[4] *Ibid.*
[5] Sharma, G.R., *Presidential Address, Indian Prehistoric Society*, Delhi, 1975, p.4. and C14 Date List, July 1973 -PRL. Ahmedabad, (Half life 5730±40 years).
[6] Marshall, *MIC.*, I, p. 37; III, pl. XC, 22.4. LXXXIX, 9 and XCI, 32 and 34.
[7] *Ibid.*, p. 38.
[8] *Ibid.*, pp. 321-332.
[9] *Ibid.*, p. 320
[10] *Ibid.*, pl. XCI, 6.
[11] *Ibid.*, pl. CLVII, 6.
[12] Vats, *Harappa*, I, p. 288; II, pl. LXXXI, 23.
[13] Marshall, *op. cit.*, I, p. 322.
[14] Mackay, *FEM.*, p. 215.
[15] *Ibid.*, pl. LXVIII, 1.
[16] Marshall, *op. cit.*, 1, pp. 321-22.
[17] Mackay, *FEM.*, I, p. 215.
[18] Marshall, *MIC*, I, pp. 322-23; III, pl. LXXXIX, 1-2 and pl. XCII, 20, 21, 27.
[19] *Ibid.*, pl. LXXXIX, 1, and pl. XCII, 20.
[20] *Ibid.*, pl. XCII, 21.
[21] Vats, *Harappa*, II, pl. LXIX, 4, 11-12, 16.
[22] *Ibid.*, pl. LXVIII, 51-52, 57-58.
[23] *Ibid.*, p. 289.
[24] *Ibid.*, II, pl. LXVII, LXVIII, 2, 38, 41.
[25] *Ibid.*, II, pl. LXVIII, 43.
[26] *Ibid.*, pl. LXVIII, 41, 42.
[27] Marshall, *MIC.*, III, pl. CXII, 387.
[28] Vats, *op. cit.*, pl. XCIII, 325.
[29] Marshall, *op. cit.*, III, pl. CXII, 381.
[30] *Ibid.*, I, 325.
[31] Marshall, *op. cit.*, I, p. 325.
[32] *Ibid.*, p. 326.
[33] *Ibid.*, p. 327.
[34] *Ibid.*
[33] Vats, *op. cit.*, I, p. 290.

[36] Marshall, *op. cit.*, III, pls. LXXXIX, 5, XCI, 1-11.

[37] *Ibid.*

[38] Marshall, *op. cit.*, I, p. 328; III, pl. LXXXVII, 6.

[39] *Ibid.*, III, pl. LXXXVII, 6, pl. LXXXIX, 9, pl. XCI, 13-19.

[40] Marshall, *op. cit.*, I, p. 329; III, pl. XCI, 13-15.

[41] Vats, *op. cit.*, I, p. 291; II, pl. LXVII, 15, pl. LXVIII, 60.

[42] *Ibid.*, pls. LXII-XIV.

[43] *Ibid.*, pl. LXIV, 10.

[44] *Ibid.*, pl. LXIII, 10.

[45] Sankalia, *Prehistory and Proto History of India and Pakistan Puratattva*, 394.

[46] Vats, *op. cit.*, II, pl. LXII-LXIV.

[47] *Ibid.*, pl. LXII-LXIII.

[48] Sankalia, *op. cit.*

[49] Vats, *op. cit.*, pl. LXIV, 18-20.

[50] *Ibid.*, pl. LXIV, 2 and 7.

[51] Vats, *op. cit.*, I, p. 22.

[52] Marshall, I, *op. cit.*, p. 46.

[53] Sir Mortimer Wheeler, *Civilization of the Indus Valley and Beyond*, p. 4

[54] Allchin, B. and Bridget, *Birth of Indian Civilization.*

[55] Marshall, *op. cit.*, I, p. 46.

[56] Marshall, *op. cit.*, I, p. 47.

[57] *Ibid.*, p. 345.

[58] Sir Mortimer Wheeler, *Civilization of the Indus Valley and Beyond.*, p. 44.

[59] Mackay, *FEM.*, I, p. 274, II, LXXXIII, pl. 9-11.

[60] Vats, *Harappa*, I, p. 295, II, pl. LXXVI, 1-10, 13.

[61] Rao, S.R., *Lothal and the Indus Civilization*, p. 88 and pl. XXXIII B. and Fig. 35. The statement on p. 88 "practised from the Vedic period" may be questioned, as, we have no specific evidence, even literary, on this point.

[62] Mackay, *FEM.*, pl. LXXV, 9.

[63] *Ibid.*, pl. LXXVI, 20.

[64] *Ibid.*, pl. LXXV, 1 and 6.

[65] Marshall, *op. cit.*, III, pl. XCV, 5, 24, 29, 30. *Ibid.*, pl. XCV, 24.

[66] Mackay, *FEM.*, pl. LXXV, 6, 12, 19.

[67] Mackay, *Chanhudaro*, pl. LIII, 1-5.

[68] Vats, *Harappa*, II, pl. LXXVI, 28-30, and pl. LXXVII, 31.

[69] *Ibid.*, I, p. 297.

[70] *Ibid.*, II, pl. LXXVI, 23.

[71] *Ibid*, pl. LXXVII, 59.

[72] *Ibid.*, II, pl. LXXVI, 26-27.

[73] *Ibid.*, pl. LXXVII, 51-53.

[74] Marshall, *op. cit.*, XCV, 6, 7, 13, 26, 27.
[75] Mackay, *FEM.*, pl. LXXV, 21-22-23.
[76] Marshall, *op. cit.*, XCV, 8.
[77] *Ibid.*, XCV, 23.
[78] Vats, *op. cit.*, II, LXXVI, 13.
[79] *Ibid*, II, LXXVI, 21.
[80] *Ibid*, II, pl. LXXVI, 16.
[81] Marshall, *op. cit.*, III, pl. XCV, 29-30, Mackay, *FEM*, II, LXXV, 19
[82] Mackay, *Chanhudaro*, pl. LIII, 1-2.
[83] *Ibid.*, pl. LI, 63.
[84] *Ibid.*, pl. LIII, 13.
[85] Mackay, *FEM.*, II, pl. LXXV, 8.
[86] Marshall, *op. cit.*, III, XCVIII-IX.
[87] Mackay, *FEM.*, I, p. 276; II, pl. LXXXII, 4 and 7.
[88] Marshall, *op. cit.*, I, pl. 356; III, pl. XCVIII.
[89] Heras Studies in Proto-Indo Medeterrenian Culture.
[90] Marshall, *op. cit.*, I, p. 357.
[91] *Ibid.*, p. 44.
[92] *Ibid.*, p. 357, III, pl. CIX, 1-3.
[93] *Ibid.*, I, p. 44, 358; III, pl. XCIX, 7-9.
[94] *Ibid.*, p. 358.
[95] It reminds us of a similar device in the representation of the Egyptian Pharaoh.
[96] Marshall, *op. cit.*, I, pl. XCIX, 4-6.
[97] *Ibid.*, p. 44.
[98] *Ibid.*, p. 44 and p. 358.
[99] *Ibid.*, p. 44.
[100] *Ibid.*, p. 359.
[101] *Ibid.*, p. 361, pl. e, 4-6.
[102] Marshall, I, p. 364.
[103] Marshall, *MIC.*, I, p. 54, III, pl. XCV, 1-3.
[104] Mackay, *FEM.*, I, pp. 267, 280, II, pls. LXXVI, I, 1-4 and LXXIV, pp. 21-22, 25-26.
[105] Mackay, *FEM.*, p. 280.
[106] *Ibid.*, pl. LXXIV, 21-22, 25-26.
[107] *Ibid.*, p. 276.
[108] Marshall, *op. cit.*, I, p. 348.
[109] Marshall, *op. cit.*, I, p. 348, 352, pl. XCVI, 17.
[110] *Ibid.*, pl. XCVI, 16.
[111] This description does not tally with the figure illustrated, No. 18, on pl. XCVI.
[112] Mackay, *FEM.*, I, p. 286.

[113] *Ibid.*, p. 286, pl. LXXIX, nos. 4, 6, 11, 12, 15.
[114] Rao, S.R. *Lothal and the Indus Civilization*, pl. XIXC. The lower figure is indistinct.
[115] Mackay, *FEM.*, pl. LXXIX, 6.
[116] Mackay, *FEM.*, pp. 285-286, 301, pl. LXXVII, 1-2.
[117] Marshall, *op. cit.*, I, p. 348, pl. III, XCVII, 8, 9, 10, 11.
[118] *Ibid.*, p. 353.
[119] *FEM.*, p. 290, pl. LXXVII, 22.
[120] Vats, *op. cit.*, I, p. 307, II, pl. LXXVIII-IX, 74.
[121] *Ibid.*, nos. 75-77.
[122] Rao, *op. cit.*, pl. XXIIIC.
[123] *Ibid.*, pl. XXIIIA.
[124] Mackay, *FEM.*, I, p. 289, II, pl. LXXVIII, 11.
[125] *Ibid.*, p. 306.
[126] Rao, *op. cit.*, p. 89.
[127] Dikshit, M.G., *Excavations at Rangpur*, *BDCRI.*, X.
[128] Mackay in Marshall, *op. cit.*, I, p. 354.
[129] Mackay, *FEM.*, I, p. 287.
[130] *Ibid.*, pl. XXIII, 5.
[131] Mackay, *FEM.*, p. 288, citing pl. LXXIX, 30 and *MIC.*, pl. XCVII, 23.
[132] Marshall, *op. cit.*, I, p. 355, pl. XCVII, 23.
[133] Mackay, *FEM.*, pp. 288, 309, pl. LXXIX, 30.
[134] *IAR.*, 1962-63, p. 7, pl. XVI, A, and Rao, *Lothal.*
[135] *Ibid.*, 1961-62, p. 44, pl. LXX, B.
[136] Mackay, *FEM.*, p. 309, pl. LXXIX, 24.
[137] *Ibid.*, p. 305, pl. LXXVII, 6.
[138] *Ibid.*, p. 308, pl. LXXIX, 18, 20.
[139] *Ibid.*, p. 308, pl. LXXIX, 22-23.
[140] *Ibid.*, p. 310, pl. LXXIX, 32.
[141] *Ibid.*, p. 289, pl. LXXIV, 11-12, pl. LXXIX, 28.
[142] Vats, *op. cit.*, p. 307, pl. LXXIX, 68.
[143] *Ibid.*, pl. LXXIX, 69-72, 73.
[144] Marshall, *MIC.*, I, p. 354, pl. XCVII, 19, *FEM.*, 305.
[145] Mackay, *Chanhudaro*, p. 156, pl. LVIII, 7-8.
[146] *Ibid.*, p. 157, pl. LV.
[147] Vats, *op. cit.*, I, pp. 306-307, and pl. LXXIX, 61-64.
[148] Marshall, *MIC.*, I, p. 351, Mackay, *FEM.*, I p. 298.
[149] Mackay, *FEM.*, I, p. 304, II, pl. LXXVIII.
[150] Mackay, *FEM.*, I, p. 298, II, pl. LXXI, 23.
[151] *Ibid.*, p. 311, pl. LXXX 7.
[152] *Ibid.*, p. 292, pls. LXXXVII, 257, LXXXVII, 279, 332; XCV, 445; CVI, 510.

[153] Marshall, *op. cit.*, I, p. 352, pl. XCVI, 24.
[154] Mackay, *Chanhudaro*, p. 160.
[155] Mackay, *FEM.*, p. 291, pl. LXXX, 8, 12.
[156] Marshall, *op. cit.*, I, p. 347, III, pl. XCVII, 1, 2, 3, 5.
[157] Mackay, *FEM.*, p. 291, pl. LXXVII, 8.
[158] Vats, *Harappa*, p. 305, pl. LXXVIII-IX, 41-43.
[159] Vats, *Harappa*, p. 305, pl. LXXVII-IX, 42.
[160] Mackay, *FEM.*, I, pp. 292, 300, pl. LXXIV, 18, 19.
[161] Vats, *Harappa*, I. p. 390, pl. CXXV, 33-34, 36.
[162] Marshall, *MIC.*, p. 351, pl. XCVI, 10.
[163] Mackay, *FEM.*, p. 299, pl. LXXIX, 13.
[164] Vats, *Harappa*, p. 308, nos. 80-82.
[165] Mackay, *Chanhudaro*, p. 159, pl. LVI, 9.
[166] Marshall, *MIC.*, p. 349, pl. XCVI, 11, 13.
[167] Mackay, *FEM.*, pp. 293, 310, pl. LXXXII.
[168] Mackay, *FEM.*, p. 293.
[169] Vats, *Harappa*, I, p. 304, pl. LXXVIII, 35.
[170] Marshall, *MIC.*, I, p. 351, pl. XCVI, 7.
[171] Vats, *Harappa*, pp. 300, 304, pl. LXXVII, 28-30.
[172] *Ibid.*, pl. LXXVII-VIII.
[173] Marshall, *MIC.*, p. 350 pl. XCVI and Mackay, *FEM.*, I, pl. LXXX, 16-26.
[174] Vats, *Harappa*, I, II pl. LXXVIII, 1-18.
[175] Mackay, *Chanhudaro*, p. 160, pl. LVII, 3-15.
[176] Mackay, *FEM.*, p. 295, pl. LXXI, 28.
[177] *Ibid.*, p. 312
[178] *Ibid.*, p. LXXX, 22.
[179] *Ibid.*, p. 302.
[180] *Ibid.*, p. 313, pl. LXXX, 26.
[181] Mackay, *FEM.*, p. 302, pl. LXXVII, 7.
[182] Vats, *Harappa*, p. 301, pl. LXXXXVI, 2.
[183] *Ibid.*, p. 302, pl. LXXVIII, 5.
[184] *Ibid.*, p. 330.
[185] Marshall, *MIC.*, III, pl. CXVIII, 11.
[186] Vats, *Harappa.*, p. 304.
[187] *Ibid.*, p. 304.
[183] *Ibid.*, pl. LXXVIII, 26.
[189] *Ibid.*, pl. LXXVIII, 21.
[190] *Ibid.*, pl. LXXVIII, 22.
[191] *MIC.*, I, p. 43.
[192] *Cambridge History of India*, Vol. I (1923).

[193] Marshall, *MIC.*, I, p. 47.

[194] *Ibid.*

[195] Mackay, *FEM.*, I, p. 325.

[196] Vats, *Harappa*, I, p. 316.

[197] Even this statement can be proved to be wrong, if we can detect paint/whitewash in the rare survival of plaster on walls at Mohenjodaro and elsewhere by spectrographic and other means.

[198] Marshall, *MIC.*, I, p. 70.

[199] Vats, I, p. 321.

[200] Mackay, *FEM.*, I, p. 326.

[201] Mackay, *FEM.*, I, p. 327.

[202] *Ibid.*, II, p. XCIX, No. 661.

[203] Marshall, *MIC*, pl. CXI, 337.

[204] Mackay, *FEM.*, p. 329, II, Pl. XCIX,c

[205] Mackay, *FEM.*, I. p. 329.

[206] *Annual Bibliography of Indian Archaeology*, 1932, pl. I,c

[207] Mackay, *FEM.*, p. 330.

[208] *Ibid.*, pl. LXXXVII, 259.

[209] *Ibid.*, pl. LXXXIX, 347.

[210] *Ibid.*, 360.

[211] *Ibid.*, 518.

[212] *Ibid.*, 522.

[213] *Ibid.*, pl. C.E.

[214] *Ibid.*, pl. XCIX, 651.

[215] Vats, pl. XCI, 253.

[216] Mackay, *FEM.*, C1.

[217] *Ibid.*, pl. LXXXV, 133.

[218] *Ibid.*, pl. e., B.

[219] *Ibid.*, pl. XCVII, 554.

[220] Mackay, *Chanhudaro*, p. 141.

[221] *Ibid.*, pl. XLIX, 1-5, 7-15, pl. L, 1-1a, 4-1ba.

[222] *Ibid.*, pl. XLIX, 6, 6b, pl. L.6.

[223] *Ibid.*, pl. L, 3, 3a.

[224] *Ancient India*, nos. 20-21, 1965-66, pp. 35, 48-49.

[225] Indian Archaeology—a Review.

[226] *Mahurjhari Excavation* 1970-72, Nagpur, 1973, pl. Va-B, and Fig. 13, 32 and 35; and *Excavations at Takalghat and Khapa, Nagpur*, 1970, pl. XVI-XVII.

[227] Dr Wakankar had again the unique advantage of seeing the specimens of rock-art not only in Europe, but in America, and studying under scholars like Professor A. L. Gourhan. His thesis entitled *Painted Rock-shelters of India* was followed up by

excavations in the rock-shelters at Bhimbetka, a group of hills near Bhopal. This has given us some definite evidence to date paintings done in certain colours, and depicting animals, etc. to a definite period.

[228] Interestingly enough, the steep scarps of these basaltic hills have proved to be an ideal setting for Buddhist monks who carved out caves and temples within them.

[229] In the South, Wakankar again discovered some four rock-shelters, though earlier in 1956, the writer with Shri Annagiri had visited the cave known as Sitalphadi. In the Benakal region, the first discoveries were made by Leonard Munn. These were followed up by Gordon, F. R. Allchin, and Wakankar, who discovered the Kishkandha rock-shelters. Those at Sangankal in the Bellary District were discovered by Robert Bruce Foote and others in the last century. Those at Tekkalakota were discovered by Dr M. S. Nagaraja Rao. The Billasurgam group in Kurnool District were first brought to light by Newbold and Robert Bruce Foote, whereas a new group in the Muchchatla Chintamani Gavi were discovered by Dr M. L. K. Murty. Dr K. Paddayya was responsible for those in the Shorapur District. In the south, the cave at Edakal was first reported by F. Fawcett in 1901, whereas a new one in Kerala was discovered by Shri S. P. Tampi (1974) and at Marayoor district Idiki only last month—(December 1974).

[230] All the earlier work in U.P., as far back as 1883 at Gormangar Likhania, and Panchmukhi was done by Carlleyle and Cockburn independently. This was later amplified, with more sites discovered by Manoranjan Ghosh in 1932, and S. K. Pandey, G. R. Sharma, and R. K. Varma, during the last 15 years (1962-1975). Jagdish Gupta (1967) also wrote on the paintings from several sites in Mirzapur. In Bhainsor Hanmana region, the major discoveries have been made by the University of Allahabad, with the first notices by Mrs Bridget Allchin at Baghaikhor.

[231] In Rewa-Banda, all the early work, around 1907, was done by Silberrad and reported in the *Journal of the Asiatic Society* of *Bengal.* To these a few additions have been lately made by N. D. Dwivedi, K. P. Jadiya (1962), S. R. Rao (1962) and K. D. Bajpai. In the Sagar Region, the major contribution has been made by S. K. Pande, (1969, and K. D. Bajpai, though the late Dr M. G. Dikshit, was responsible for discovering the rock-shelters at Abchand, and Naryanli, and Pagare at Bila Ghat.

[232] The late Col D. H., Gordon was the principal explorer and commentator on some of the rock-shelters at Panchmarhi. For over 20 years since 1935, when he first discovered the rock paintings, he wrote on these paintings. It was certainly due to his indefatigable zeal and persistence that considerable interest was aroused in this much neglected field, though the first discoveries were made in the last century.

The famous site of Sanganpur in Raigarh was first discovered by C. W. Anderson in

1911, and since then Percy Brown [(1917), P. Mitra (1923) Manoranjan Ghosh, (1932) Gordon and Wakankar have commented on its paintings.

In Orissa, first Panchanan Mitra, then K. P. Jayaswal (1933) and P. Acharya are to be credited for the four sites known so far.

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Index

Abchand, rock-shelter, paintings, 87, 90

Adamgarh, rock-shelter, paintings, 84, 87, 91

Agra, rock-shelters in, 84

Africa, rock-art, origin, 93

Ahar, site, 14; art, 73; black-and-red ware with white paintings, 74

Ajanta, paintings, 94

Alabaster, statue and Mackay and Marshall, 37

Allchin, R., 27

Amulet, Jhukar Period, and art, 72

Andhra, rock-shelters, 82

Animals, painted on Harappan pottery, 16; in rock-paintings, 94; in Indus Civilization, 42, 69

Aniconic, sculpture, 9

Ansari, Z.D., and ostrich shell, 9

Antelope, figure, Mohenjodaro, 44, 69; Chanhudaro, 73

Armadillo, Harappa, 58

Art, definition, 1; antiquity, 1; *Homo sapiens*, 3, 6; in handaxes, 4; birth and development, 4; and Realism, 29; pottery, 20; history, 21; seals and sealings, 60; life of the Harappans, 68, 70; amulets from Chanhudaro, 72; in pottery from Navdatoli, 74, 75, 76, 77; megaliths, 79; of painting in Madhya Pradesh, 93

Australopithecus, 2

Badami, caves, and painting of bison, 87

Banda, rock-shelters, 91

Bastar, rock-shelters, 83

Beads, carnelian, etched, and art, 70

Bhimbetka, caves and rock-shelters with rock-art, 81, 84, 85, 86, 87, 88, 90; horse, 91, 92

Bhopal, rock-art in, 81, 82; horse panel, 91

Bison, painting, Badami, 87

Black-and-red with paintings in white, Ahar pottery, 74

Blades and burins, Patne, 7

Boas, Franz, 94

Brahmani bull, 48, 63, 64

Brahmi letters, and rock-paintings, 91

Breui, Abbe, 94

Bronze, goat, Harappa, 63

Buccranian, motif in painting, 89

Buffalo, Harappa, Mohenjodaro, Chanhudaro, 51; seals, 66; Adamgarh, 87

Bull, terracotta, Lothal, Kalibangan, 46; in literature, 47; short-horned, 48; copper-bronze, 47; faience and steatite, 46, 49; artistic, 48; ritual heads, 49; for children, 50; shell, 50; Jhukar Culture, 51; seals, 63; engraving, Tekkalkota, 89

C-14 dates, megaliths, 79

Caricature in art, 29; in Indus Civilization, 30

Carlleyle, 84

Carnelian beads and art, 70

Cave-shelters, 81-82; and light for painting, 94

Cemetery H, art motifs, 18-19, 45

Chandoli, pottery, 77

Champagne cups, Navdatoli, 75

Chanhudaro, bulls, 50, 63; Jhukar amulets, and art, 72; and caricature, 31

Children, and toy-making, 21, 50, 52, 68
Cock, 57
Cockburn, 84
Copper, bull, 47
Crafts and Art, 1
Cro-Magnon man, and *Homo sapiens*, 5

Dancer, Harappan statuette, 25; bronze, 26; in rock-art, 89
Deccan plateau, and cave-shelters, 82
Deccan, College and ostrich shell, Mula-Mutha, 9
Deer, in painting, 87, 88
Delwara, Mt. Abu, and rock-art, 84
Dogs, copper-bronze, and faiences Mohenjodaro, Harappa, 42, 43; painting, Nevasa, 78
Dordogne, France, and rock-art, 82
Duck, 51

Edkal or Edakkal cave, Kerala, and rock-art, 83, 88, 90
Elephant, in terracotta, 54, 64, 65; in painting, 87
Emotion, in terracotta, 34
Engraving, in Edkal cave, 88
Excavation, rock-shelter, 81

Facial expression, in terracotta, 34
Faience, and Indus art: dog, 43; bull, 46; ram, 52, 53; squirrel, 55; snake, 58; other objects, 68
Fawcett, 84
Female bust, in Indus art, 30
Fertility figures, 31
Figurine, Belan, in bone, 7, 8; human, in Indus Civilization, 21, 22, 27; realistic, 30, 31
Foote (Bruce), 84
France, Dordogne, and rock-art, 82

Gandhisagar, rock-shelters, and painting, 82
Gangapur, symmetric handaxe, 4
Gaur, R.C., 79
Gharial (crocodile), terracotta, 366
Ghosh, Manoranjan, 84
Gopansar, site, 83
Gordon (Col), 84
Gourhan, Andre Leroi, and art interpretation, 6, 94
Greek, artist, and Harappan statuette, 25; and Indus art, 66
Grey limestone statuette, 35
Gupta, J.P., 84, 85, 92
Gupta, sculpture, 34

Hair-dressing, and headwears, 32
Hallur, site, horse bones at, 91
Handaxe and art, 4
Harappa, painted pottery, 13; stone statuette, 23; copper dog, 42; goat, 53; humped bull, 51; ram, 53; parrot, 57; snakes, 58; crocodile, 59; rhinocaros, 45, 66; armadillo, 58; mongoose, 58
Hiranand Shastri, 84
Homo habilis, 2
Homo sapiens, and art, 3 and Cro-Magnon man, 6; and rock-art, 93
Horse, terracotta, Mohenjodaro, 45; in painting, Bhimbetka, 91, 92
Hoshangabad, rock-shelter, 84
Human, figurine, painting, 87, 88, 94
Human, figurine, terracotta, Belan, 93

Indian, rock-art, and *Homo-sapiens*, 93
Indus Civilization, figurines, 21; *Yogic*

asanas in terracotta figurines, 29; caricature, 30; animals in, 42 seal-cutting art, 67; Indus population and love of art, 69; estimate of art, 71
Inamgaon, pottery, 77
Interpretation, art, 6
Isaac (Dr) and tools, 2

Jhukar Culture, Chanhudaro, and bulls, 51
Jorwe, site, pottery, 77
Joshi, R.V., excavation at Adamgarh, 84

Kakrapahar, rock-shelters, 88
Kalegaon, site, symmetrical "point" from, 5
Kalibangan, terracotta, 39, 61
Karnataka, rock-art, 82
Kayatha, pottery and rock-paintings, 86, 74
Kerala, and rock-art, 82
Khapa, site, 79
Kharwai, rock-shelter, and paintings, 85
Kharwai, rock-paintings, 88, 90; and horse panels, 92
Kile Gul Mohamad, site painted pottery, 10
Kota Jhalawad, rock-shelter, 84
Kurnool caves, 93

Lal Quila, female figurine, 78
Lamps, and paintings in caves, 94
Lepenski Vir, and aniconic sculpture, 9
Leakey, Olduvai Gorge, 2
Levallois, core, and art, 3
Luni, sites on, and symmetrical point, 5
Lingayats, and bull worship, 47
Lota, from Navdatoli and art, 75
Lothal, site, rhinoceros, 45; seals, 16
Lunar notation on bone, 92
MacCurdy, 93-94
Mackay, Ernest, and Indus pottery, 12, 14, 15, 17; and work of children, 22; steatite figure, 33; on portrait sculpture, 35; grey limestone figure, 36, 38, 39; masks, 40; on *yogi*-like figure, 37; on dogs, 43; rhinoceros, 44; buffalo, 51; urus bull, 61; artistic representation of monkeys, 55; on art, 68; Indus people, 69; Chanhudaro amulets, 73
Madhya Pradesh, rock-art, 82
Mahurjhari, megaliths, 79
Mathpal, Y.D., 81
Manganiferous paint on pottery, 14
Marayoor, rock-shelter, Kerala, 83
Marshall, John, on painted pottery, 12; sandstone statuette, 25, 27; on *yogi*-like figure, 37; on Greek and Indus art, 60; on technique for small objects, 70
Masks, Mohenjodaro, 40, 41
Mathura, *yakshinis*, and Indus female figurines, 30
Meditation, in Indus terracotta figure, 34
Megaliths, Vidarbha, South India and art, 79; Britain, 92
Minor arts, and Indus people, 69
Mirzapur, 83; paintings in, 90
Misra, V.N., 81
Modi, rock-shelter, 87; painting, 88
Mohenjodaro, caricature 31; sculpture, 69; Mongolian features in, 41; copper dog, 42, 43; antelope, rhinoceros, 44; doves, squirrels, 56; peacock, 57; short-horned bull, 63
Mongolian features, and steatite figure, 34, 41
Mongoose, Harappa, 58
Monochrome painting, Harappan pottery, 13
Morgan, 94
Motifs in Indus pottery, 18

Munn, 84

Nal, site, painting of antelope, 44
Navdatoli, art of pottery painting, 74; rock-art, and, 86, 88; horse bones at, 91
Neanderthal man and art, 5
Nevasa, symmetrical handaxe from, 4; painting of dog, 78
Newbold, 84
Nimar, 84

Olduvai Gorge, 2, 3; symmetrical handaxes from, 4
Ornaments, Indus civilization, 68
Owl, steatite figure, 56, 57
Ostrich shell, engraving on, from Patne, 8; Deccan College, 9

Painting, Rana Ghundai, Nal Tell Halaf, etc, 10; Navdatoli, 11; Monochrome, bichrome, polychrome on pottery, 13; animals, antelope, dove, ibex, peacock, snake, 15; technique, 14; plants, acacia, palm, *pippal*, 16; geometric motifs, 17; prehistoric, 85; in white, 90; historic, 90; interpretation, 94; light in caves, 94; technique, 94; war scenes, 92
Pachmadhi, painting, 88; horse scenes, 92
Painted Grey Ware, 78
Pande, P.C., 83
Pappu, R.S., 9
Parrot, Harappa, 57
Patne, site, ostrich shell, 7, 8, 93
Peacock, painting, 89
Photography, infrared and rock-art, 85
Piklihal, rock-art, 88
Pippal, leaves, painting, 20
Plants, Harappa, 16
Point, (stone tool), symmetric and art, 5
Pola, Bull-day in Maharashtra, 47
Portrait, *Yogi*, Mohenjodaro, 35
Potassium argon dating method, 2
Pottery, painted, and art, 10; Kalibangan, 11; Navdatoli, 11; Marshall on, 12; from Harappa and art, 72; Malwa, 74; Navdatoli, 75, 76, 77; Bhimbetka, 86; Kayatha, 86
Prakash, pottery and art, 74
Prepared Core (stone tool), and art, 3
Punctured decoration, Tekkalkota, 89
Punch-marked coins, and symbols in rock-art, 91
Putlikarar, rock-shelter, 83, 88; painting, 90; horse, 91

Ram, faience, 52
Rampur, rock-shelter, 84
Raigarh, rock-shelter, 84
Rana Ghundai, painted pottery, 10
Rainach, Soloman, 93
Raisen, rock-shelter, 88
Rao, S.R., 29
Realism in Indus art, 29
Red ochre, nodules, from excavation, Bhimbetka, 86
Rhinoceros, Mohenjodaro, 44; Chanhudaro, 45; Lothal, 45; seal, 66
Ritual bull head, Mohenjodaro, 49
Rock-art, 80, 81, 82, 83; phases and styles, 84; *Homo sapiens*, 93
Roman, art, and Indus art, 60
Rudolf, Lake, Man, 2

Sagar, rock-shelters and paintings, 90
Sali, S.A., ochre shell, Patne, 8
Sculpture, Mohenjodaro, and Mackay, 38, 39; goat, 54
Seals and sealings, and Indus art, 60;

buffalo, 66; elephant, 64; Lothal, Kalibangan, 61; tiger, 65
Sehore, rock-shelter, 84
Shahadkard, paintings, 88
Sharma, G.R., 8
Shell, bull head, 54
Singapur, stick-like human beings in painting, 90
Singahauli, rock-art, 84
Snake, 58
Sollas, 93
Songaon, pottery, 77
South Indian, megaliths, and art, 79
Spain, Santandar, and rock-paintings, 82
Spectography, and rock paintings, 88
Srejovic Dragoslav, 9
Statuette, grey stone, Harappa, 22-24, 70; black figure, Mohenjodaro, 33; white figure, 33
Steatite, bull, 46, 49; rum, 52
Stone, statue and Indus civilization, 39, 40
Sun motif, 18
Sunrise, motif, Navdatoli, 76
Surkotada, seals, 61
Swastika, painting, Inamgaon, 78
Symbols, historic in rock paintings, 91

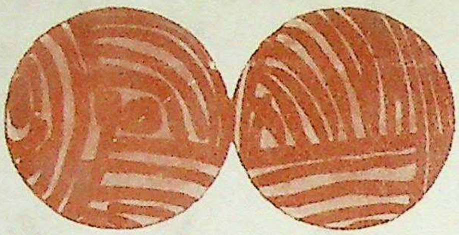
Takalghat, rock-shelter, 79
Technique, Harappa statuette, 24, 70; painting, 94
Tekkalkota, punctured decoration on pottery, 89; bull engraving, and human palm, 89
Tell Halaf, painted pottery, 16
Terracotta head, Kalibangan, 39
Thapar, B.K., 77
Tiger, seal, 65
Tikla, Gwalior, rock-shelter, 83, 89
Turban, in Indus art, 33

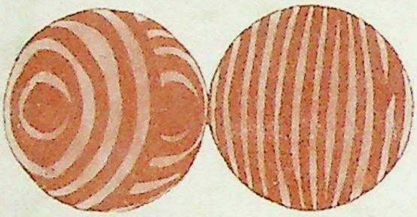
Uttar Pradesh, rock-shelters in, 82

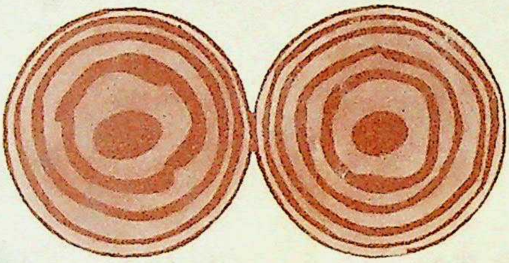
Vats, M.S., polychrome pottery, 13; motifs, 18, 27; bulls, 51, 53; Indus art, 68
Vidarbha, megaliths, and art, 79
Vindhyas, and rock-shelters, 82

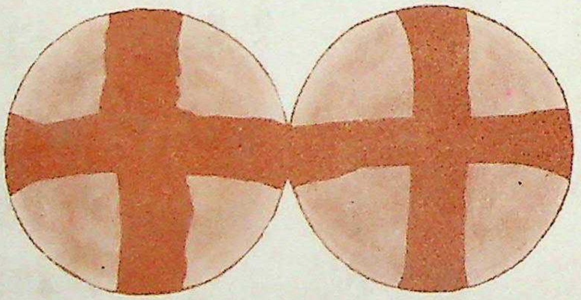
Wakankar, V.S., and rock-art study, 81, 83, 84, 85, 86, 87, 88, 94, 97
War scenes, in rock paintings, 92
Weight, Indus civilization, 68, 70
Wheeler, Mortimer, 27, 29, 75

Yogic *asanas*, in Indus terracotta, 29; portrait, 35
Yellow limestone figure, 86









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